

A.G.E.O. E GLI ESPERTI
le nostre domande e le
loro risposte



LE MASSE OVARICHE: OPINIONI A CONFRONTO

La terapia chirurgica

P. De Iaco

Ginecologia Oncologica

Policlinico S.Orsola-Malpighi, Bologna

CNGOF COLLEGE NATIONAL DES GYNÉCOLOGUES ET OBSTÉTRICIENS FRANÇAIS ESPACE MEMBRE

CNGOF - Clinique - Recherche - Formation - Journées Nationales - Ressources documentaires - Espace info - Renouvelez votre adhésion

Recherche...

CNGOF
 ACTUALITÉS DU CNGOF
 SOCIÉTÉ SAVANTE
 CONSEIL D'ADMINISTRATION
 COMMISSIONS
 CONSEIL SCIENTIFIQUE
 GROG / CEROG
 BRIEVES / CONTACT
 LES MEMBRES


Enseignement - Formation
 DPC
 DU / DIJ
 ENSEIGNEMENT UNIVERSITAIRE
 E-LEARNING
 FORMATIONS (HORS DPC)
 ANALYSE PRATIQUE T21
 DPM (OPADN)
 MOCOS
 ACADEMIE D'EXCELLENCE


Pratique clinique
 RPC
 DIRECTIVES QUALITE
 REFERENTIELS
 CROISSANCE FOETALE -
 COURBES AJUSTEES EPOPE
 INFORMATION PATIENTES
 GUIDELINES
 ESSURE - INFO PRO

Journées Nationales
 ANCIENNES JOURNÉES
 LES MISES À JOUR
 DIAPORAMAS
 PROCHAINES JOURNÉES
 PROGRAMME 2018
 MEDIATHEQUE NUMERIQUE
 RESSOURCES HUMAINES POUR
 ACTIVITES NON PROGRAMMEES

Recherche scientifique
 PROTOCOLES
 BOURSES ET PRIX
 ETUDES - RECHERCHES -
 APPEL APPEL
 QUESTIONNAIRES POUR VOUS

Ressources documentaires
 VIDEOS
 INTERNAT
 JURIDIQUE
 ARCHIVES
 DOCUMENTS POUR INTERNES
 REFERENTIELS DES COLLEGES -
 GYNÉCOLOGUE OBSTÉTRIQUE
 COURBES AJUSTEES EPOPE

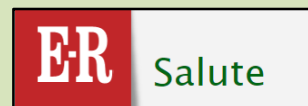
 **BSGE**

 Royal College of
Obstetricians &
Gynaecologists

**Management of Suspected Ovarian
Masses in Premenopausal Women**

Green-top Guideline No. 62
RCOG/BSGE Joint Guideline | November 2011

REGIONE EMILIA-ROMAGNA



PERCORSO REGIONALE: IL CORRETTO APPROCCIO CHIRURGICO DELLA PAZIENTE CON CARCINOMA OVARICO

- Ovarian cysts are diagnosed with **increasing frequency in postmenopausal women** as more patients are undergoing imaging in connection with medical care.
- An ovarian cyst inevitably raises the question of its relevance to the woman's symptoms and concerns for the possibility of ovarian cancer
- The large numbers of ovarian cysts now being discovered by ultrasound and the low risk of malignancy of many of these cysts suggest that **they need not all be managed surgically.**
- The **further investigation and management** of these women has **implications for morbidity, mortality, resource allocation and tertiary referral patterns.**

The morbidity and outcomes can be improved by:

- using **conservative management** where possible
- the use of **laparoscopic techniques where appropriate**, thus avoiding laparotomy where possible
- **referral to a gynaecological oncologist** when appropriate.

A transvaginal pelvic ultrasound is the single most effective way of evaluating ovarian cysts in postmenopausal women.

Transabdominal ultrasound should not be used in isolation. It should be used to provide supplementary information to transvaginal ultrasound particularly when an ovarian cyst is large or beyond the field of view of transvaginal ultrasound.

On transvaginal scanning, the **morphological description** and subjective assessment of the ultrasound features should be **clearly documented** to allow calculation of the **risk of malignancy**.

Transvaginal ultrasound scans should be performed using multifrequency probes by **trained clinicians** with expertise in gynaecological imaging.

MRI should be used as the **second-line imaging modality** for the characterisation of indeterminate ovarian cysts when ultrasound is inconclusive.

While assessment with MRI can improve overall sensitivity and specificity of ovarian cyst characterisation, there are **inherent limitations** to the more widespread use of MRI, which **preclude its routine use** over transvaginal ultrasonography

Currently, the best use of **CT imaging** is **not to detect and characterise pelvic masses** but to evaluate the abdomen for metastases when a malignant cyst is suspected based on transvaginal ultrasound images, examination and serum markers.

A CT scan can detect omental metastases, peritoneal implants, pelvic or para-aortic lymph node enlargement, hepatic metastases, obstructive uropathy and possibly an alternate primary cancer site, including pancreas or colon.

Surgery for ovarian cyst

- **Ovarian cyst in Postmenopausal women**
- **Ovarian cyst in Premenopausal women**
- **Ovarian mass suspected of malignancy**

- A thorough **medical history** should be taken from the woman, with specific attention to risk factors and symptoms suggestive of ovarian malignancy, and a **family history of ovarian, bowel or breast cancer**.
- Where family history is significant, referral to the Regional Cancer Genetics service should be considered.
- **Appropriate tests** should be carried out in any postmenopausal woman who has developed **symptoms within the last 12 months that suggest irritable bowel syndrome, particularly in women over 50 years of age or those with a significant family history** of ovarian, bowel or breast cancer.

- Cystic lesions in the **postmenopausal ovary** should only be reported as ovarian cysts, and considered significant, if they are **1 cm or more in size**.

- Cystic lesions **smaller than 1 cm** are clinically inconsequential and it is at the **discretion of the reporting clinician whether or not to describe** them in the imaging report as they do not need follow-up

Surgery for ovarian cyst in postmenopausal women

- **Risk of malignancy**
- **Symptoms**
- **Diameter of the cyst**



Risk of complications in patients with conservatively managed ovarian tumours (IOTA5): a 2-year interim analysis of a multicentre, prospective, cohort study

Wouter Froyman, Chiara Landolfo, Bavo De Coq, Laure Wymants, Povilas Sladkevicius, Antonia Carla Testa, Caroline Van Halbeke, Ekaterini Domadi, Robert Fruscia, Elisabeth Epstein, Maria José dos Santos Bernardo, Dorella Franchi, Marek Jerzy Kudła, Valentina Chiappa, Juan Luis Alcazar, Francesco Paolo Giuseppe Leone, Francesca Buonomo, Lauri Hochberg, Maria Elisabetta Coccia, Stefano Guerriero, Nandita Deo, Ligita Jokubkiene, Jeroen Kijzer, An Coosemans, Ignace Vergote, Jan Yvan Verbakel, Tom Bourne, Ben Van Calster, LI Valentin, Dirk Timmerman**

The primary aim of the IOTA phase 5 (IOTA5) study is to estimate the **risk of adverse events** (including a diagnosis of **malignancy, cyst rupture, or torsion**) during ultrasound follow-up of adnexal masses with benign ultrasound morphology in patients with no or minimal symptoms.

Ultrasound examiners classified each mass using subjective assessment of the ultrasound images as:

benign, borderline, or malignant

And specified the degree of certainty with which the diagnosis was made

certain, probable, or uncertain



Risk of complications in patients with conservatively managed ovarian tumours (IOTA5): a 2-year interim analysis of a multicentre, prospective, cohort study

Wouter Froyman, Chiara Landolfo, Bavo De Cock, Laure Wynants, Povilas Sladkevicius, Antonia Carla Testa, Caroline Van Holsbeke, Ekaterini Domdi, Robert Fruscio, Elisabeth Epstein, Maria José dos Santos Bernardo, Dorella Franchi, Marek Jerzy Kudła, Valentina Chiappa, Juan Luis Alcazar, Francesco Paolo Giuseppe Leone, Francesca Buonomo, Lauri Hochberg, Maria Elisabetta Coccia, Stefano Guerriero, Nandita Deo, Ligita Jokuškienė, Jeroen Kaijser, An Coosemans, Ignacio Vergote, Jan Yvan Verbakel, Tom Bourne, Ben Van Calster, Lil Valentin*, Dirk Timmerman*

Exclusion criteria were lesions presumed to be physiological if **smaller than 3 cm** in largest diameter

8519 patients recruited to IOTA5 during interim analysis window

25 excluded because of withdrawal of consent

8494 patients in IOTA5 during window
7329 with new masses
1163 already in follow-up
2 with missing information on whether new mass or already in follow-up

3927 not included in interim analysis
3906 selected for surgical management
19 unclear management selected*
2 missing information on whether new mass or already in follow-up

4567 selected for conservative management
3602 with new masses
965 already in follow-up

120 excluded after ultrasound examiner classification
32 because presumed diagnosis of invasive or borderline malignancy
88 because presumed diagnosis was uncertain

4447 with masses judged to be probably or certainly benign
3494 had new masses
953 already in follow-up

1303 excluded because 17 centres had insufficient patient numbers or quality of follow-up data

3144 included in interim analysis

221 had no follow-up data
336 underwent surgery before any follow-up scan was completed

2587 underwent per protocol follow-up included in survival analysis
1919 had new masses
668 had masses already in follow-up



Risk of complications in patients with conservatively managed ovarian tumours (IOTA5): a 2-year interim analysis of a multicentre, prospective, cohort study

Wouter Froyman, Chiara Landolfo, Bavo De Cook, Laure Wymants, Povilas Sladkevicius, Antonia Carla Testa, Caroline Van Holsbeke, Ekaterini Domadi, Robert Fruscia, Elisabeth Epstein, Maria José dos Santos Bernardo, Dorella Franchi, Marek Jerzy Kudia, Valentina Chiappa, Juan Luis Alcazar, Francesco Paolo Giuseppe Leone, Francesca Buonomo, Lauri Hochberg, Maria Elisabetta Coccia, Stefano Guerriero, Nandita Deo, Ligita Jokubkiene, Jeroen Kalfjer, An Coosemans, Ignace Vergote, Jan Yvan Verbakel, Tom Bourne, Ben Van Calster, LI Valentin*, Dirk Timmerman*

| | All patients (n=3144) | New masses (n=2410)* | New masses with follow-up (n=1919) | Masses already in follow-up (n=734)* † |
|--|--------------------------|-------------------------|---------------------------------------|---|
| Tumour type using IOTA terminology³⁰ | | | | |
| Unilocular | 1912 (61%) | 1474 (61%) | 1149 (60%) | 438 (60%) |
| Unilocular—solid | 138 (4%) | 97 (4%) | 79 (4%) | 41 (6%) |
| Multilocular | 788 (25%) | 601 (25%) | 505 (26%) | 187 (25%) |
| Multilocular—solid | 122 (4%) | 96 (4%) | 80 (4%) | 26 (4%) |
| Solid | 184 (6%) | 142 (6%) | 106 (6%) | 42 (6%) |
| Ultrasound examiner's presumed diagnosis | | | | |
| Simple, para-ovarian, or salpingeal cyst | 762 (24%) | 583 (24%) | 480 (25%) | 179 (24%) |
| Serous cystadenoma or cystadenofibroma | 744 (24%) | 511 (21%) | 428 (22%) | 233 (32%) |
| Endometrioma | 591 (19%) | 458 (19%) | 331 (17%) | 133 (18%) |
| Teratoma | 347 (11%) | 268 (11%) | 195 (10%) | 79 (11%) |
| Functional cyst | 182 (6%) | 177 (7%) | 158 (8%) | 5 (1%) |
| Fibroma or fibrothecoma | 158 (5%) | 116 (5%) | 92 (5%) | 42 (6%) |
| Hydrosalpinx | 128 (4%) | 104 (4%) | 85 (4%) | 24 (3%) |
| Mucinous cystadenoma or cystadenofibroma | 105 (3%) | 84 (3%) | 67 (3%) | 21 (3%) |
| Abscess, salpingitis, or pelvic inflammatory disease | 37 (1%) | 34 (1%) | 21 (1%) | 3 (<1%) |
| Inclusion or peritoneal cyst | 36 (1%) | 26 (1%) | 20 (1%) | 10 (1%) |



Risk of complications in patients with conservatively managed ovarian tumours (IOTA5): a 2-year interim analysis of a multicentre, prospective, cohort study

Wouter Froyman, Chiara Landolfo, Bavo De Cock, Laure Wynants, Povilas Sladkevicius, Antonia Carla Testa, Caroline Van Holsbeke, Ekaterini Domadi, Robert Fruscio, Elisabeth Epstein, Maria José dos Santos Bernardo, Dorella Franchi, Marek Jerzy Kudła, Valentina Chiappa, Juan Luis Alcazar, Francesco Paolo Giuseppe Leone, Francesca Buonomo, Lauri Hochberg, Maria Elisabetta Coccia, Stefano Guerriero, Nandita Deo, Ligita Jokubkiene, Jeroen Kaijser, An Coosemans, Ignace Vergote, Jan Yvan Verbakel, Tom Bourne, Ben Van Calster, Lil' Valentin*, Dirk Timmerman*

| | All masses (n=2587) | | New masses (n=1919) | |
|---|---------------------|-------------------|---------------------|-------------------|
| | 12 months | 24 months | 12 months | 24 months |
| Study endpoint event | | | | |
| Spontaneous resolution of cyst | 13.2% (11.8-14.5) | 16.3% (14.8-17.7) | 16.5% (14.8-18.2) | 20.2% (18.4-22.1) |
| Surgery performed | 9.0% (7.9-10.2) | 14.6% (13.2-16.0) | 10.3% (8.9-11.7) | 16.1% (14.3-17.7) |
| Death, any cause | 0.5% (0.2-0.7) | 1.1% (0.7-1.6) | 0.5% (0.2-0.8) | 1.2% (0.6-1.7) |
| Surgery by indication | | | | |
| Suspicion of malignancy | 1.4% (0.9-1.8) | 2.1% (1.6-2.7) | 1.4% (0.9-2.0) | 2.0% (1.3-2.6) |
| Pain | 2.6% (1.9-3.2) | 4.2% (3.4-5.0) | 2.6% (1.9-3.4) | 4.5% (3.5-5.5) |
| Patient request, fertility concerns, or opportunistic or prophylactic removal | 5.1% (4.2-6.0) | 8.2% (7.1-9.3) | 6.2% (5.1-7.3) | 9.5% (8.2-10.9) |
| Surgery by outcome | | | | |
| Invasive malignancy | 0.3% (0.1-0.5) | 0.4% (0.2-0.7) | 0.4% (0.1-0.6) | 0.4% (0.1-0.6) |
| Borderline tumour | 0.2% (<0.1-0.4) | 0.3% (0.1-0.5) | 0.2% (<0.1-0.4) | 0.3% (<0.1-0.5) |
| Torsion | 0.2% (<0.1-0.4) | 0.3% (0.1-0.6) | 0.3% (<0.1-0.5) | 0.4% (0.1-0.7) |
| Cyst rupture | 0.2% (<0.1-0.4) | 0.2% (<0.1-0.4) | 0.2% (<0.1-0.3) | 0.2% (<0.1-0.4) |
| Minor mass complications* | 1.2% (0.7-1.6) | 2.4% (1.8-3.0) | 1.2% (0.7-1.7) | 2.7% (1.9-3.4) |
| No mass complications | 7.0% (6.0-8.0) | 10.9% (9.6-12.1) | 8.1% (6.8-9.3) | 12.1% (10.6-13.6) |
| Probability of being in follow-up† | 77.3% (75.6-78.9) | 68.0% (66.1-69.8) | 72.7% (70.6-74.6) | 62.5% (60.2-64.7) |

Risk of complications in patients with conservatively managed ovarian tumours (IOTA5): a 2-year interim analysis of a multicentre, prospective, cohort study

Wouter Froyman, Chiara Landolfo, Bavo De Cock, Laure Wynants, Povilas Sladkevicius, Antonia Carla Testa, Caroline Van Holsbeke, Ekaterini Domali, Robert Fruscio, Elisabeth Epstein, Maria José dos Santos Bernardo, Dorella Franchi, Marek Jerzy Kudla, Valentina Chiappa, Juan Luis Alcazar, Francesco Paolo Giuseppe Leone, Francesca Buonomo, Lauri Hochberg, Maria Elisabetta Coccia, Stefano Guerriero, Nandita Deo, Ligita Jokubkiene, Jeroen Kaijser, An Coosemans, Ignace Vergote, Jan Yvan Verbakel, Tom Bourne, Ben Van Calster, Lil Valentin*, Dirk Timmerman*

| | | Spontaneous resolution of cyst | Surgery performed | Surgery, invasive malignancy found | Surgery, borderline tumour found | Surgery, torsion found | Surgery, cyst rupture |
|--------------------|------|--------------------------------|-------------------|------------------------------------|----------------------------------|------------------------|-----------------------|
| Tumour type | | | | | | | |
| Unilocular | 1149 | 22.2% (19.7-24.6) | 14.5% (12.4-16.6) | 0.4% (0.1-0.8) | 0.2% (<0.1-0.4) | 0.3% (<0.1-0.6) | 0.2% (<0.1-0.4) |
| Multilocular | 505 | 21.6% (17.9-25.2) | 16.5% (13.1-19.9) | 0% (nc) | 0.2% (<0.1-0.7) | 0.7% (<0.1-1.4) | 0.4% (<0.1-1.0) |
| Unilocular-solid | 79 | 20.0% (10.4-28.6) | 38.9% (26.4-49.4) | 0% (nc) | 1.4% (<0.1-4.0) | 1.3% (<0.1-3.9) | 0% (nc) |
| Multilocular-solid | 80 | 3.8% (<0.1-7.9) | 12.7% (5.0-19.7) | 2.5% (<0.1-5.9) | 1.2% (<0.1-3.7) | 0% (nc) | 0% (nc) |
| Solid | 106 | 5.1% (0.6-9.4) | 16.4% (8.7-23.4) | 0% (nc) | 0% (nc) | 0% (nc) | 0% (nc) |

| Lesion size (grouped) | | | | | | | |
|-----------------------|-----|-------------------|-------------------|-----------------|-----------------|------------------|-----------------|
| ≤30mm | 506 | 20.1% (16.4-23.6) | 9.8% (7.1-12.4) | 0.2% (<0.1-0.6) | 0.2% (<0.1-0.6) | 0% (nc) | 0.2% (<0.1-0.6) |
| 31-40mm | 429 | 22.8% (18.6-26.7) | 12.3% (9.0-15.5) | 0.5% (<0.1-1.1) | 0% (nc) | 0% (nc) | 0.3% (<0.1-0.8) |
| 41-50mm | 395 | 23.1% (18.8-27.2) | 11.5% (8.2-14.7) | 0.5% (<0.1-1.2) | 0% (nc) | 0% (nc) | 0.5% (<0.1-1.2) |
| 51-70mm | 404 | 19.0% (15.0-22.8) | 23.5% (19.1-27.7) | 0.5% (<0.1-1.2) | 0.5% (<0.1-1.3) | 0.9% (<0.1-1.9) | 0% (nc) |
| 71-100mm | 150 | 11.6% (6.2-16.6) | 32.5% (24.2-39.8) | 0% (nc) | 0.7% (<0.1-2.1) | 1.4% (<0.1-3.3) | 0% (nc) |
| >100mm | 35 | 11.6% (0.2-21.6) | 43.6% (24.3-58.0) | 0% (nc) | 2.9% (<0.1-8.2) | 5.7% (<0.1-13.1) | 0% (nc) |

Asymptomatic, simple, unilateral, unilocular ovarian cysts, less than 5 cm in diameter, have a low risk of malignancy. In the presence of normal serum CA125 levels, these cysts can be managed conservatively, with a repeat evaluation in 4–6 months.

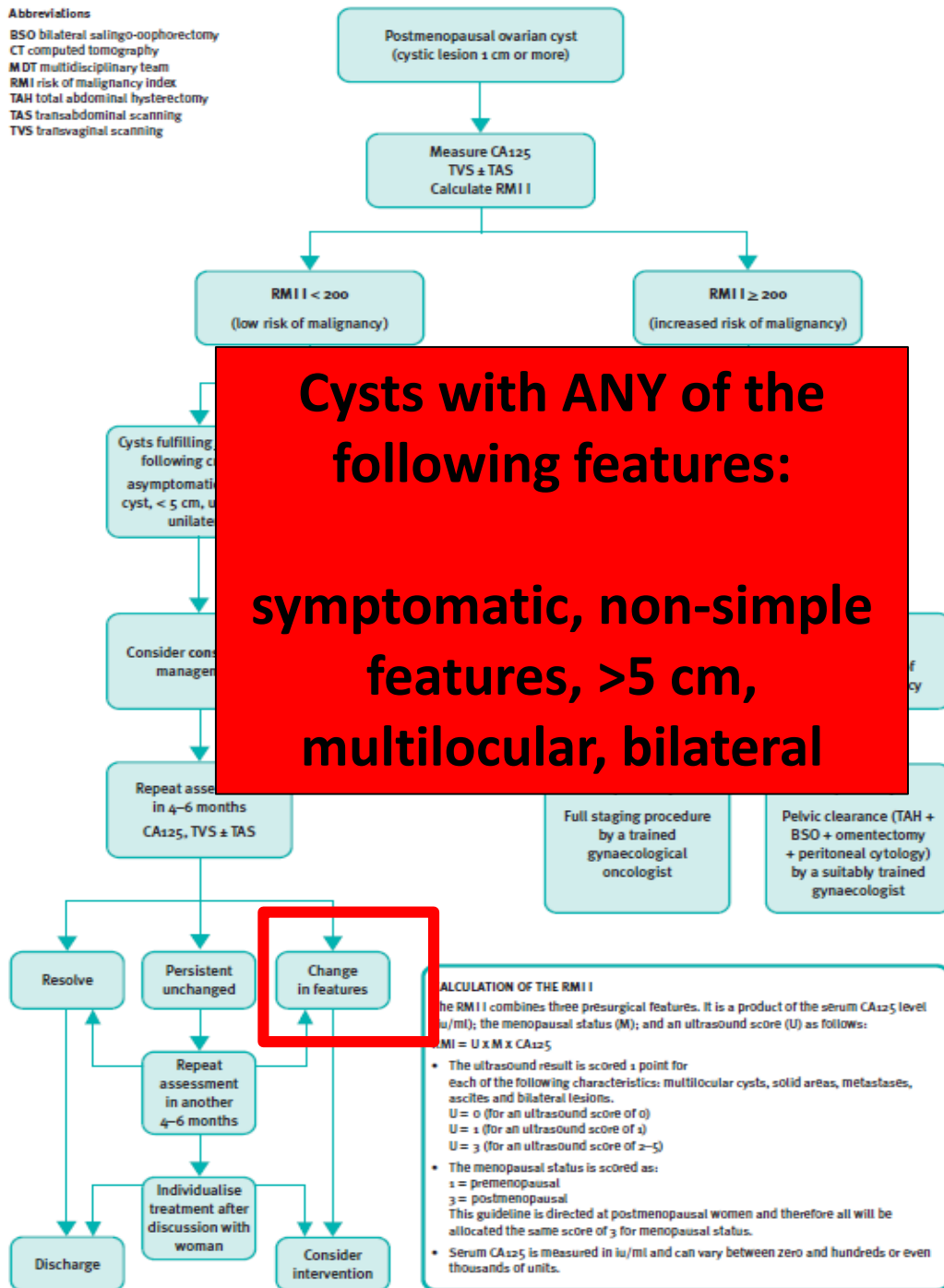
It is reasonable to discharge these women from follow-up after 1 year if the cyst remains unchanged or reduces in size, with normal CA125, taking into consideration a woman's wishes and surgical fitness.

If a woman is **symptomatic**, further surgical evaluation is necessary.

Conversely, those cysts that are **likely to be malignant** are best managed with further imaging in the form of a **CT scan and referral to a gynaecological oncologist**

Abbreviations

- BSO bilateral salpingo-oophorectomy
- CT computed tomography
- MDT multidisciplinary team
- RMI risk of malignancy index
- TAH total abdominal hysterectomy
- TAS transabdominal scanning
- TVS transvaginal scanning



**Cysts with ANY of the following features:
symptomatic, non-simple features, >5 cm, multilocular, bilateral**

ALCULATION OF THE RMI I

The RMI I combines three presurgical features. It is a product of the serum CA125 level (u/ml); the menopausal status (M); and an ultrasound score (U) as follows:

$$RMI I = U \times M \times CA_{125}$$

- The ultrasound result is scored 1 point for each of the following characteristics: multilocular cysts, solid areas, metastases, ascites and bilateral lesions.
U = 0 (for an ultrasound score of 0)
U = 1 (for an ultrasound score of 1)
U = 3 (for an ultrasound score of 2-5)
- The menopausal status is scored as:
1 = premenopausal
3 = postmenopausal
This guideline is directed at postmenopausal women and therefore all will be allocated the same score of 3 for menopausal status.
- Serum CA125 is measured in u/ml and can vary between zero and hundreds or even thousands of units.

Aspiration of an ovarian cyst in a postmenopausal woman is **not recommended**.

Diagnostic cytological examination of ovarian cyst fluid is poor at distinguishing between benign and malignant tumours, with sensitivities in most studies of around 25%.

In addition, even when a benign cyst is aspirated, the procedure is often not therapeutic. Approximately **25% of cysts in postmenopausal women will recur** within 1 year of the procedure.

Finally, aspiration of a malignant cyst may induce **spillage** and seeding of cancer cells into the peritoneal cavity, thereby adversely affecting the stage and prognosis.

An **exception exists for those symptomatic women who are medically unfit** to undergo surgery or further intervention. In these women, aspiration will provide **relief of their symptoms**, albeit temporarily.

Could postmenopausal ovarian cysts be managed by laparoscopy?

Laparoscopic management of ovarian cysts in postmenopausal women should be undertaken by a surgeon with **suitable experience**.

Laparoscopic management of ovarian cysts in postmenopausal women should comprise **bilateral salpingo-oophorectomy** rather than cystectomy.

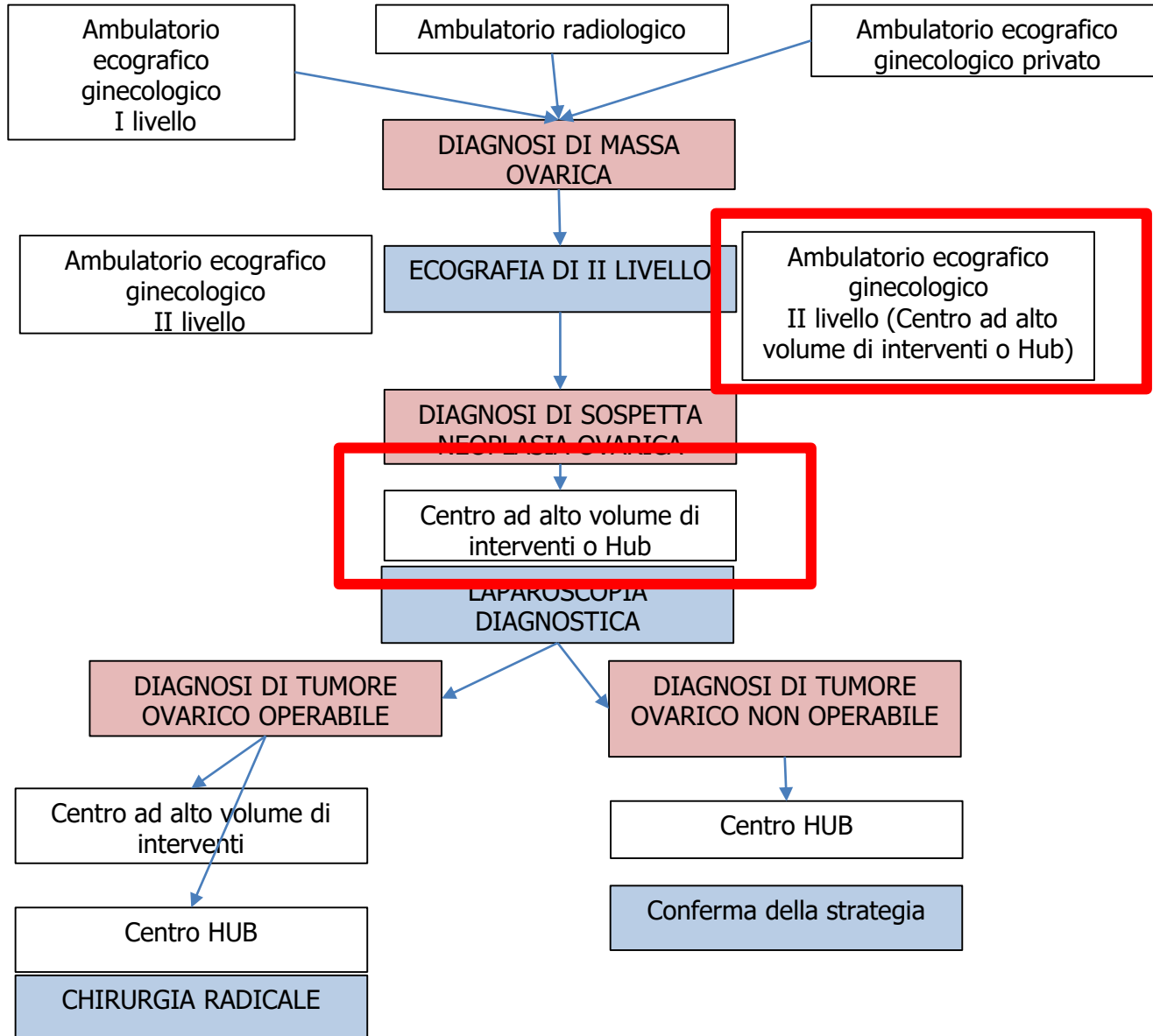
Where possible, the surgical specimen should be removed without intraperitoneal spillage in a **laparoscopic retrieval bag**.

PERCORSO REGIONALE DI GESTIONE DEL TUMORE OVARICO



- Le masse annessiali con l'applicazione delle simple rules possono essere classificate in: **benigne, maligne e inconclusive**. La massa classificata come benigna potrà essere gestita in maniera conservativa o chirurgica da qualunque struttura ed esula da questo percorso. **Le masse con caratteristiche di malignità dovranno essere inviate ad un centro di riferimento per le cure del caso**. Le masse con esito inconclusivo alla valutazione con le SR dovranno essere inviate ad una valutazione ecografica di II livello che ne stabilirà la categoria di rischio.

PERCORSO CENTRALIZZAZIONE CHIRURGICA TUMORE OVAIO REGIONE EMILIA ROMAGNA



Caratteristiche dei Centri nei quali può essere eseguita **chirurgia del tumore ovarico:**

Presenza di esame **istologico al congelatore** (estemporanea)

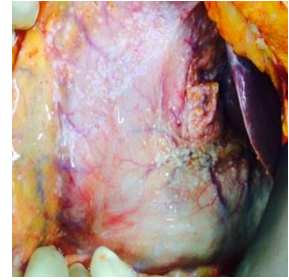
Presenza di **anatomo-patologo esperto**

.....
Queste caratteristiche devono essere confermate annualmente per ogni centro



In mancanza dell'esame istologico **estemporaneo al congelatore** o in caso di diagnosi non conclusiva è da preferire **l'intervento chirurgico in due tempi.**

LA LAPAROSCOPIA E LA GESTIONE DELLE PAZIENTI CON CARCINOMA AVANZATO



LAPAROSCOPIA DIAGNOSTICA

Non possibilità
di citoriduzione
ottimale

Possibilità di
citoriduzione
ottimale

Chemioterapia
neoadiuvante

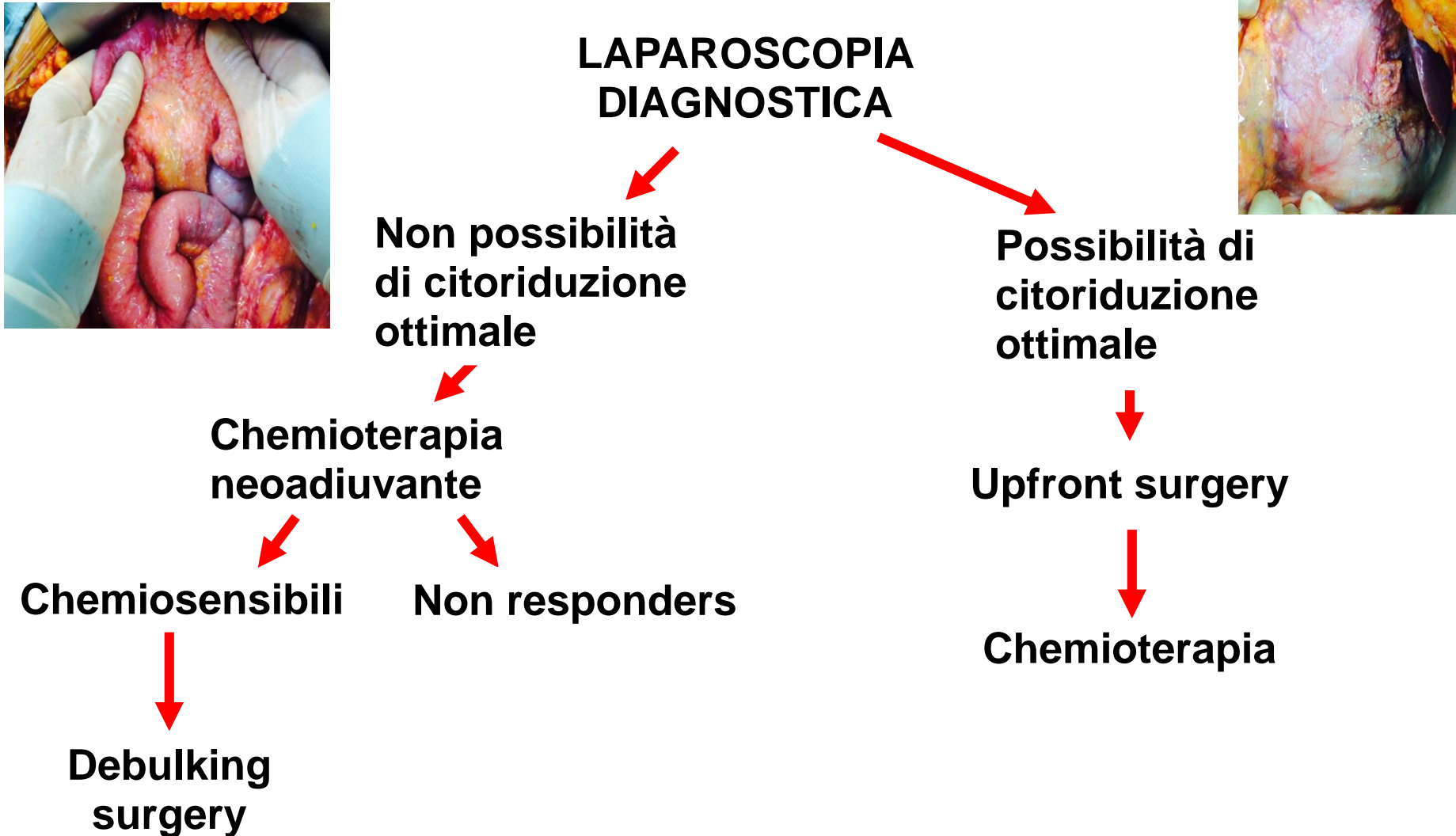
Upfront surgery

Chemiosensibili

Non responders

Chemioterapia

Debulking
surgery



5.3.1 Ruolo della terapia chirurgica nel trattamento dell'endometrioma

Il trattamento chirurgico dell'endometrioma trova indicazione nel caso in cui i sintomi siano o diventino resistenti alla terapia medica, o nei casi in cui le dimensioni aumentino o siano superiori ai 3 cm di diametro nelle pazienti infertili^{34,35}.

Raccomandazione

- Il trattamento chirurgico trova indicazione nel caso in cui la cisti diventi sintomatica oppure aumenti di dimensioni (VI B).

5
GIUGNO
2018

DIAGNOSI E TRATTAMENTO DELL'ENDOMETRIOSI

REALIZZATO DALLA FONDAZIONE CONFALONIERI RAGONESE
SU MANDATO SIGO, AOGOI, AGUI

RACCOMANDAZIONI

SIGO
SOCIETÀ ITALIANA
DI GINECOLOGIA E OSTETRICIA

AOGOI

AGUI

A thorough **medical history** should be taken from the woman with specific attention to risk factors or protective factors for ovarian malignancy and a family history of ovarian or breast cancer.

Symptoms suggestive of endometriosis should be specifically considered



Management of Suspected Ovarian Masses in Premenopausal Women

Green-top Guideline No. 62
RCOG/BSGE Joint Guideline | November 2011

Management of Suspected Ovarian Masses in Premenopausal Women

Green-top Guideline No. 62
RCOG/BSGE Joint Guideline | November 2011

In premenopausal women almost all ovarian masses and cysts are **benign**.

The overall **incidence** of a **symptomatic ovarian cyst** in a premenopausal female **being malignant is approximately 1:1000** increasing to 3:1000 at the age of 50.

ADNEXAL MASSES IN PREMENOPAUSAL WOMEN

Table 1. Types of adnexal masses

| | |
|------------------------------------|--|
| Benign ovarian | Functional cysts Endometriomas Serous cystadenoma Mucinous cystadenoma Mature teratoma |
| Benign non-ovarian | Paratubal cyst Hydrosalpinges Tubo-ovarian abscess Peritoneal pseudocysts Appendiceal abscess Diverticular abscess Pelvic kidney |
| Primary malignant ovarian | Germ cell tumour Epithelial carcinoma Sex-cord tumour |
| Secondary malignant ovarian | Predominantly breast and gastrointestinal carcinoma. |

A serum **CA-125** assay does not need to be undertaken in all premenopausal women when an ultrasonographic diagnosis of a **simple ovarian cyst** has been made.

CA-125 is unreliable in differentiating benign from malignant ovarian masses in premenopausal women because of the increased rate of false positives and reduced specificity.

This is as a result of CA-125 being raised in numerous conditions including **fibroids, endometriosis, adenomyosis and pelvic infection.**

When serum CA-125 levels are raised, serial monitoring of CA-125 may be helpful as rapidly rising levels are more likely to be associated with malignancy than high levels which remain static.

Risk of complications in patients with conservatively managed ovarian tumours (IOTA5): a 2-year interim analysis of a multicentre, prospective, cohort study

Wouter Froyman, Chiara Landolfo, Bavo De Cock, Laure Wynants, Povilas Sladkevicius, Antonia Carla Testa, Caroline Van Holsbeke, Ekaterini Domali, Robert Fruscio, Elisabeth Epstein, Maria José dos Santos Bernardo, Dorella Franchi, Marek Jerzy Kudla, Valentina Chiappa, Juan Luis Alcazar, Francesco Paolo Giuseppe Leone, Francesca Buonomo, Lauri Hochberg, Maria Elisabetta Coccia, Stefano Guerriero, Nandita Deo, Ligita Jokubkiene, Jeroen Kaijser, An Coosemans, Ignace Vergote, Jan Yvan Verbakel, Tom Bourne, Ben Van Calster, Lil'Valentin*, Dirk Timmerman*

| Finding | Premenopausal patients (n = 1096) | | Postmenopausal patients (n = 823) | |
|--|--------------------------------------|------------------|--------------------------------------|------------------|
| | 12 months | 24 months | 12 months | 24 months |
| Cumulative incidence by study outcome | | | | |
| Spontaneous resolution of cyst | 24.8 (22.2-27.3) | 29.8 (27.0-32.6) | 5.6 (4.0-7.2) | 7.5 (5.6-9.3) |
| Surgery performed | 12.3 (10.3-14.2) | 18.7 (16.3-21.1) | 7.6 (5.8-9.5) | 12.6 (10.2-14.9) |
| Death of any cause | 0.1 (<0.1-0.3) | 0.1 (<0.1-0.3) | 1.0 (0.3-1.7) | 2.6 (1.4-3.7) |
| Cumulative incidence of surgery by indication | | | | |
| Suspicion of malignancy | 1.2 (0.6-1.9) | 1.6 (0.9-2.4) | 1.7 (0.8-2.6) | 2.5 (1.4-3.6) |
| Pain | 4.5 (3.3-5.8) | 7.2 (5.6-8.8) | 0.1 (<0.1-0.4) | 1.0 (0.2-1.7) |
| Patient request/fertility concerns/opportunistic or prophylactic removal | 6.5 (5.0-8.0) | 9.9 (8.0-11.7) | 5.8 (4.1-7.4) | 9.1 (7.0-11.2) |

Management of Suspected Ovarian Masses in Premenopausal Women

Green-top Guideline No. 62
RCOG/BSGE Joint Guideline | November 2011

Women with small (**less than 50 mm diameter**) **simple ovarian cysts** generally **do not require follow-up** as these cysts are very likely to be physiological and almost always resolve within 3 menstrual cycles.

Ovarian cysts that persist or **increase in size** are unlikely to be functional and may warrant surgical management.

There is no evidence-based consensus on the size above which surgical management should be considered. Most studies have used an arbitrary maximum diameter of **50–60 mm** among their inclusion criteria to offer **conservative management**.

The use of the combined oral contraceptive pill does not promote the resolution of functional ovarian cysts.

In adult women **without history of cancer**, **abstention** is possible in case of asymptomatic pure **unilocular cyst less than 10 cm**.

If **symptoms develop**, **laparoscopy** is the reference approach for PBOT surgical treatment. A **conservative surgical treatment (cystectomy)** should be preferred to oophorectomy in non - menopausal women without previous history of cancer.

In cases of **suspected adnexal torsion**, laparoscopic surgical exploration is recommended. Conservative treatment, **untwisting without oophorectomy**, is recommended for non-menopausal women whatever the estimated duration of the twist and the macroscopic appearance of the ovary.



Certification for Advanced Ovarian Cancer Surgery

Gynaecologic Oncological Unit

Sant Orsola - Malpighi Hospital, Bologna, Italy

is hereby recognised as an

ESGO CERTIFIED CENTRE

For a time period of 5 years



Prof. David Cibula
President ESGO



Prof. Denis Querleu
Chair, ESGO Guidelines Committee

Vienna,
March 24, 2017

The European Voice of Gynaecological Oncology

Timmerman D, Valentin L, Bourne TH, Collins WP , Verrelst H, Vergote I; International Ovarian Tumor Analysis (IOTA) group.

Terms, definitions and measurements to describe the sonographic features of adnexal tumors: a consensus opinion from the International Ovarian Tumor Analysis (IOTA) group.

Ultrasound Obstet Gynecol 2000;16:500–5.

incidence of malignancy (8% for multilocular and 36–39% for lesions with solid elements).73A

IOTA group simple ultrasound rules and logistic regression model LR2

Simple ultrasound rules were derived from the IOTA group data to help classify masses as benign (B-rules) or malignant (M-rules).

Using these morphological rules, the reported sensitivity was 95% and the specificity was 91%, with a positive likelihood ratio of 10.37 and a negative likelihood ratio of 0.06.

Women with an ovarian mass with any of the M-rules ultrasound findings should be referred to a gynaecological oncology service

The pooled sensitivity and specificity in the prediction of ovarian malignancies was 78% (95% CI 71–85%) and 87% (95% CI 83–91%) respectively for a RMI I cut-off of 200.

When ovarian malignancy is considered likely based on clinical assessment and a RMI I score greater than or equal to the threshold of 200, cross-sectional imaging in secondary care, in the form of a CT scan of the abdomen and pelvis, is indicated to help assess the extent of disease and to help exclude alternative diagnoses, with onward referral to a gynaecological oncology multidisciplinary team.

Clinical acumen has to be used to decide on further appropriate management of the woman, including the location of prospective surgery.

Calculation of the RMI I

The RMI I combines three presurgical features. It is a **product of** the serum **CA125 level** (iu/ml); the **menopausal status** (M); and an **ultrasound score** (U) as follows: **$RMI = U \times M \times CA125$** .

The ultrasound result is scored 1 point for each of the following characteristics: multilocular cysts, solid areas, metastases, ascites and bilateral lesions.

U = 0 (for an ultrasound score of 0)

U = 1 (for an ultrasound score of 1)

U = 3 (for an ultrasound score of 2–5).

The menopausal status is scored as 1 = premenopausal and 3 = postmenopausal.

While assessment with MRI can improve overall sensitivity and specificity of ovarian cyst characterisation, there are inherent limitations to the more widespread use of MRI, which preclude its routine use over transvaginal ultrasonography. These are both institutional (e.g. high cost, more restricted availability) and patient-related restrictions; MRI is contraindicated in certain patients (e.g. cardiac pacemaker, cochlear implants) and can have reduced acceptance by some patients (e.g. those with claustrophobia)

MRI is a valuable problem-solving tool when ultrasound is inconclusive or limited due to body habitus. MRI of the sonographically indeterminate adnexal mass can be used to guide patient care and reduce the costs of further management.

‘Pattern recognition’ of specific ultrasound findings with more complex scoring systems can produce sensitivity and specificity equivalent to logistic regression models, especially when performed by more experienced clinicians specialising in gynaecological imaging.

This could potentially reduce the number of ‘unnecessary’ surgical interventions.

However, this evidence derives from centres with particular expertise in this field and might not be universally achievable in all clinical settings with variable expertise

Evidence from larger screening studies found a higher rate of resolution of unilocular cysts at 70%, with only complex cysts having an increased risk of malignancy.

Adnexal cysts 5 cm or smaller in postmenopausal women are rarely malignant.

Adnexal cysts 5 cm or smaller in postmenopausal women are rarely malignant.

METTERE ARTICOLO IOTA

It is recommended that ovarian cysts in postmenopausal women should be initially assessed by measuring serum cancer antigen 125 (CA125) level and transvaginal ultrasound scan

All ovarian cysts that are suspicious of malignancy in a postmenopausal woman, as indicated by a RMI I greater than or equal to 200, CT findings, clinical assessment or findings at laparoscopy, require a full laparotomy and staging procedure.

If a malignancy is revealed during laparoscopy or from subsequent histology, it is recommended that the woman be referred to a cancer centre for further management.

Of a cohort of 15 735 postmenopausal women from the intervention arm of the PLCO Cancer Screening Trial through 4 years of transvaginal ultrasound screening, simple cysts were seen in 14% of women the first time that their ovaries were visualised. The 1-year incidence of new simple cysts was 8%. Among ovaries with one simple cyst at the first screen, 54% retained one simple cyst and 32% had no cyst 1 year later. Simple cysts did not increase the risk of subsequent invasive ovarian cancer. Most cysts appeared stable or resolved by the next annual examination

Greenlee RT, Kessel B, Williams CR, Riley TL, Ragard LR, Hartge P , et al. Prevalence, incidence, and natural history of simple ovarian cysts among women >55 years old in a large cancer screening trial. Am J Obstet Gynecol 2010;202: 373.e1–9.

Asymptomatic, simple, unilateral, unilocular ovarian cysts, less than 5 cm in diameter, have a low risk of malignancy. In the presence of normal serum CA125 levels, these cysts can be managed conservatively, with a repeat evaluation in 4–6 months.

It is reasonable to discharge these women from follow-up after 1 year if the cyst remains unchanged or reduces in size, with normal CA125, taking into consideration a woman's wishes and surgical fitness.

Initial assessment and estimation of the risk of malignancy

Which RMI should be used?

The 'RMI I' is the most utilised, widely available and validated effective triaging system for women with suspected ovarian cancer.

Although a RMI I score with a threshold of 200 (sensitivity 78%, specificity 87%) is recommended to predict the likelihood of ovarian cancer and to plan further management, some centres utilise an equally acceptable threshold of 250 with a lower sensitivity (70%) but higher specificity (90%).

Other scoring systems are described. OVA1[®] and Risk of Malignancy Algorithm require specific assays which may make routine use impractical. The International Ovarian Tumor Analysis (IOTA) classification, which is based on specific ultrasound expertise, has comparable sensitivity and specificity to RMI and forms an alternative for those experienced in this technique

Keywords: adnexal tumours; postmenopausal; ultrasound; ovarian cancer; ovarian cysts; management; Risk of Malignancy Index; Simple Rules

Comparison of two protocols for the management of asymptomatic postmenopausal women with adnexal tumours – a randomised controlled trial of RMI/RCOG vs Simple Rules

Natalie Nunes¹, Gareth Ambler², Xulin Foo¹, Joel Naftalin¹, Grigoris Derdelis¹, Martin Widschwendter¹ and Davor Jurkovic^{*1}

148 women were randomised:

- Simple Rules Management Protocol (SRMP)
- Risk of Malignancy Index in the Royal College of Obstetricians and Gynaecologists guideline (RMI/RCOG)
- Surgery in
 - 28.1% women in the RMI/RCOG
 - 10.3% women in the SRMP

no delayed diagnoses of ovarian cancer at 12 months.

The introduction of ‘simple rules’ into routine clinical practice could result in a significant reduction in the number of surgical procedures offered to postmenopausal women with incidental diagnoses of adnexal cysts on imaging.

A thorough medical history should be taken from the woman, with specific attention to risk factors and symptoms suggestive of ovarian malignancy, and a family history of ovarian, bowel or breast cancer.

Where family history is significant, referral to the Regional Cancer Genetics service should be considered.

Appropriate tests should be carried out in any postmenopausal woman who has developed symptoms within the last 12 months that suggest irritable bowel syndrome, particularly in women over 50 years of age or those with a significant family history of ovarian, bowel or breast cancer.

Women who are at high risk of malignancy are likely to need a laparotomy and full staging procedure as their primary surgery

If a malignancy is revealed during laparoscopy or from subsequent histology, it is recommended that the woman be referred to a cancer centre for further management.

A thorough medical history should be taken from the woman, with specific attention to risk factors and symptoms suggestive of ovarian malignancy, and a family history of ovarian, bowel or breast cancer.

Where family history is significant, referral to the Regional Cancer Genetics service should be considered.

Appropriate tests should be carried out in any postmenopausal woman who has developed symptoms within the last 12 months that suggest irritable bowel syndrome, particularly in women over 50 years of age or those with a significant family history of ovarian, bowel or breast cancer.

REGIONE EMILIA-ROMAGNA



**PERCORSO REGIONALE: IL CORRETTO APPROCCIO
CHIRURGICO DELLA PAZIENTE CON CARCINOMA OVARICO**

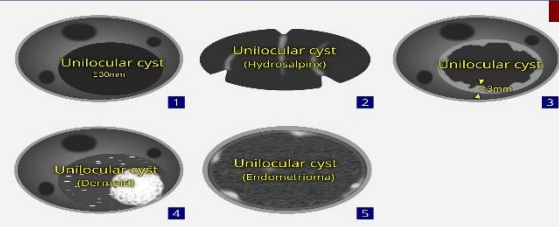
- Tutte le pazienti con **massa annessiale** devono eseguire un'ecografia pelvica transvaginale completata da un tempo addominale. Tutte le masse devono essere classificate secondo i criteri IOTA (ref : Timmerman D, et. Ultrasound Obstet Gynecol. 2000 Oct;16(5):500-5.) (Allegato 1).
- Il referto dovrà specificare: il tipo di cisti (uniloculare, uniloculare-solida, multi-loculare, multi-loculare-solida or solida), il contenuto della cisti (anecogeno, ipoecogeno, ground glass, emorragico o misto), la presenza e la dimensione di strutture solide o papillari o irregolarità di parete, la vascolarizzazione, la presenza di coni d'ombra e ascite.



TABLE OF LESIONS
 Terms and definitions from the International Ovarian Tumor Analysis (IOTA) group

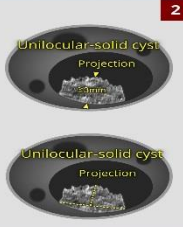
Unilocular cyst

- 1 A unilocular cyst without septa and without solid parts or papillary structures.
- 2 If a cyst has only incomplete septa and no real septa, it is recorded as unilocular. An incomplete septum as seen in hydrosalpinges is defined as a thin strand of tissue running across the cyst cavity from one internal surface to the contralateral side, but which is not complete in some scanning planes.
- 3 If there is irregular internal cyst wall without a solid papillary projection, then the cyst is also unilocular by definition. The height of excrescences should be less than 3 mm.
- 4 The hyperreflective and avascular area ("white ball") in the center of dermoid cyst should not be classified as a solid papillary projection.
- 5 Similarly, "sludge" on the internal walls is not regarded as a papillary projection.



Unilocular-solid cyst

A unilocular cyst with a measurable solid component or at least one papillary structure. This category may include pyo- or hydrosalpinges with the so called 'beads on a string' or 'cogwheel' appearance if their height is greater than or equal to 3 mm. If the solid components comprise 80% or more of the tumor than the mass is called a solid tumor.



Multilocular cyst

A cyst with at least one septum but no measurable solid components or papillary projections. A septum is not classified as a solid component and is defined as a thin echogenic strand of tissue running across the cyst cavity from one internal surface to the contralateral side.



Multilocular-solid cyst

A multilocular cyst with a measurable solid component or at least one papillary projection.



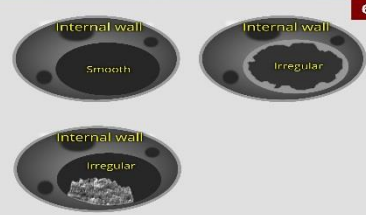
Solid tumor

A tumor where the solid components comprise 80% or more of the tumor when assessed in a two-dimensional section. A solid tumor may contain papillary projections protruding into the small cysts of the solid tumor.



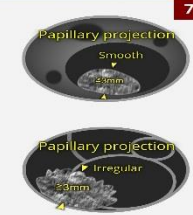
Internal cyst wall

The internal cyst wall is described as being "smooth" or "irregular". If there is a solid papillary projection, then the wall is irregular by definition. In cases of "sludge" (as seen in endometriotic cysts), the internal walls are also called "irregular".



Solid papillary projection

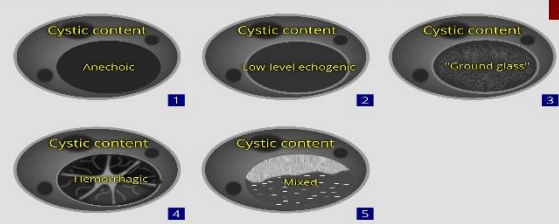
Solid papillary projections are defined as any solid projections protruding into the cyst cavity from the cyst wall with a height greater than or equal to 3 mm. The hyper-echogenic avascular area of a dermoid cyst or sludge on the internal walls are not regarded as a papillary projection. Solid papillary projections are described as being "smooth" or "irregular" (e.g. califlower-like).



Cystic contents

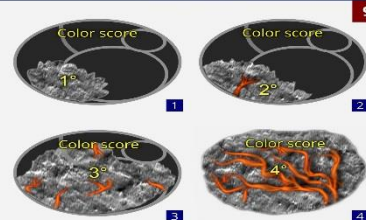
The dominant feature of the cystic contents is described as:

- 1 anechoic (black)
- 2 low-level echogenic (i.e. homogeneous low-level echogenic as seen in mucinous tumors)
- 3 "ground glass" appearance (homogeneously dispersed echogenic cystic contents, as often seen in endometriotic cysts)
- 4 hemorrhagic (with internal thread-like structures, representing strands)
- 5 or mixed (as often seen in teratomas).



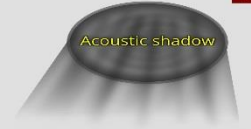
Subjective assessment of blood flow

- 1 Color score of 1 is given when no blood flow within the septa, cyst walls, or solid tumor areas.
- 2 Color score of 2 is given when only minimal flow can be detected.
- 3 Color score of 3 is given when moderate flow is present.
- 4 Color score of 4 is given when the adnexal mass appears highly vascular with marked blood flow.



Acoustic shadows

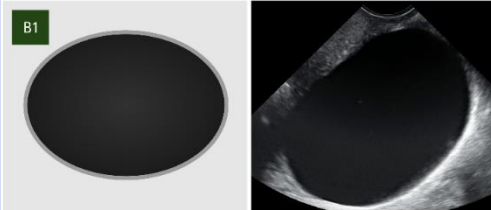
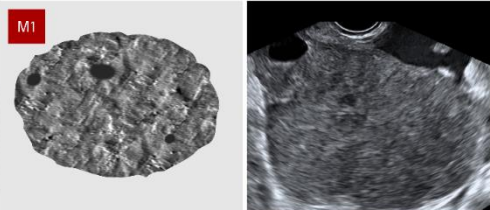
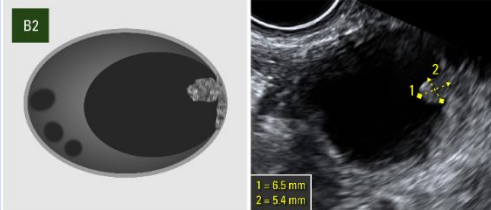

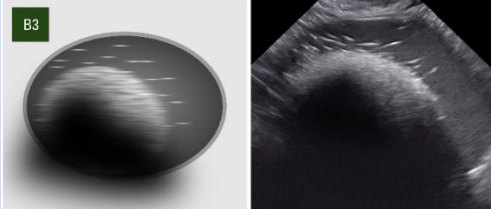
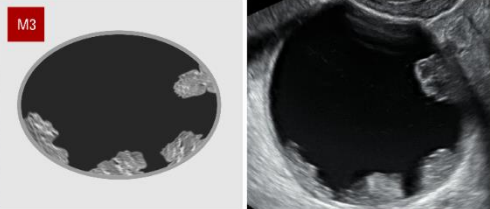
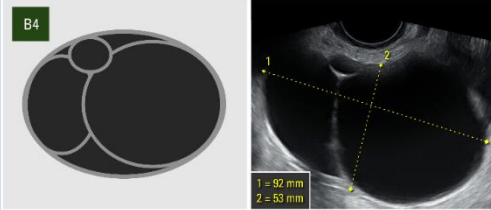
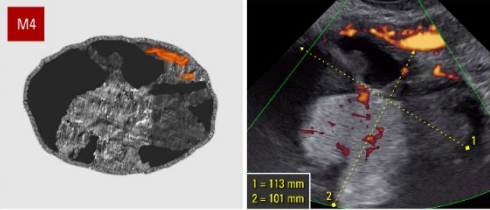
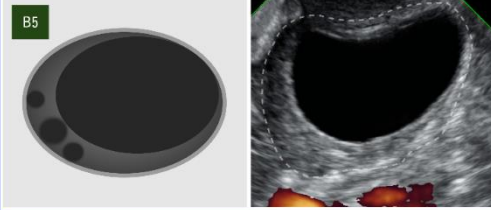
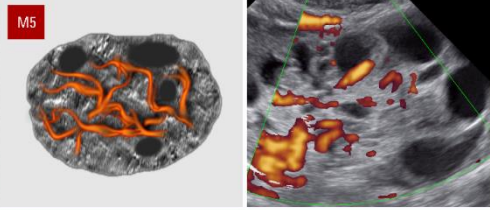
The presence of acoustic shadows, defined as loss of acoustic echo behind a sound-absorbing structure, is noted.



- Il dosaggio del marker tumorale CA 125 deve accompagnare il riscontro ecografico di massa annessiale (il dosaggio di HE4 è facoltativo). Si suggerisce di integrare anche con il dosaggio del CA 19.9 e il CEA per escludere metastasi da patologie gastroenteriche.

- Il rischio della massa annessiale deve essere stimato attraverso le “simple rules” (SR) (Allegato 2) in caso di ecografista “non esperto”. (ref. Timmerman D, Testa AC, et al. Ultrasound Obstet Gynecol. 2008 Jun;31(6):681-90.)

| International Ovarian Tumor Analysis (IOTA) simple rules | | | |
|--|---|-----------|---|
| B1 | Unilocular cyst | M1 | Irregular solid tumor |
| B2 | Presence of solid components, maximal diameter < 7 mm | M2 | Presence of ascites |
| B3 | Presence of acoustic shadows | M3 | At least four papillary structures |
| B4 | Smooth multilocular tumor, maximal diameter < 100 mm | M4 | Irregular multilocular solid tumor, maximal diameter >100mm |
| B5 | No blood flow (color score 1) | M5 | Very strong blood flow (color score 4) |

| | | | |
|-----------|---|-----------|--|
| B1 |  | M1 |  |
| B2 |  | M2 |  |
| B3 |  | M3 |  |
| B4 |  | M4 |  |
| B5 |  | M5 |  |

- Rule 1: se una o più caratteristiche M sono presenti, in assenza delle caratteristiche B, la massa viene classificata come maligna.
- Rule 2: se una o più caratteristiche B sono presenti, in assenza di caratteristiche M, la massa è classificata come benigna.
- Rule 3: se sono presenti sia caratteristiche M che B o nessuna delle due, il risultato è considerato inconclusivo.

- Ecografista di II livello è definito un ecografista che abbia effettuato un training post-specialità presso un centro di terzo livello; deve avere eseguito almeno 30 sedute ecografiche in un Centro con competenza II livello e che abbia effettuato un numero di ecografie ginecologiche pari ad almeno 2000 (ref. Van Holsbeke C. *Ultrasound Obstet Gynecol.* 2009 Oct;34(4):454-61; *Ultraschall Med.* 2006 Feb;27(1):79-105.).
- L'ecografista di secondo livello stabilisce il rischio neoplastico secondo i criteri IOTA e il pattern recognition.

- In caso di conferma di sospetto neoplastico tutte le pazienti devono eseguire una TAC toraco-addomino-pelvica con m.d.c. entro 15 giorni dall'ecografia. Essa si prefigge di valutare:
 - Analisi della diffusione endoperitoneale della sospetta neoplasia ovarica
 - Omental cake, ispessimenti peritoneali, versamento addominale
 - Analisi del retroperitoneo
 - Linfadenopatie, stenosi ureterale
 - Noduli parenchimali
 - Analisi dell'eventuale diffusione toracica della malattia
 - Ispessimenti/noduli pleurici e mediastinici

- **Analisi dei markers tumorali**
 - CA125
 - ulteriori markers in caso di sospetto di lesione particolare (CA19.9 per casi sospetti mucinosi, He4 per casi sospetti di endometriosi cancerizzata) (inibina, alfa-feto proteina, beta-HCG in caso di sospetto di tumori non epiteliali)

- Colonscopia e gastroscopia vengono eseguite solo in casi selezionati, su sospetto clinico

A seguito dell'iter diagnostico tutti i casi sono quindi definiti come sospetti per tumori ovarici iniziali o sospetti per tumori ovarici avanzati.

Citoriduzione nel carcinoma ovarico avanzato

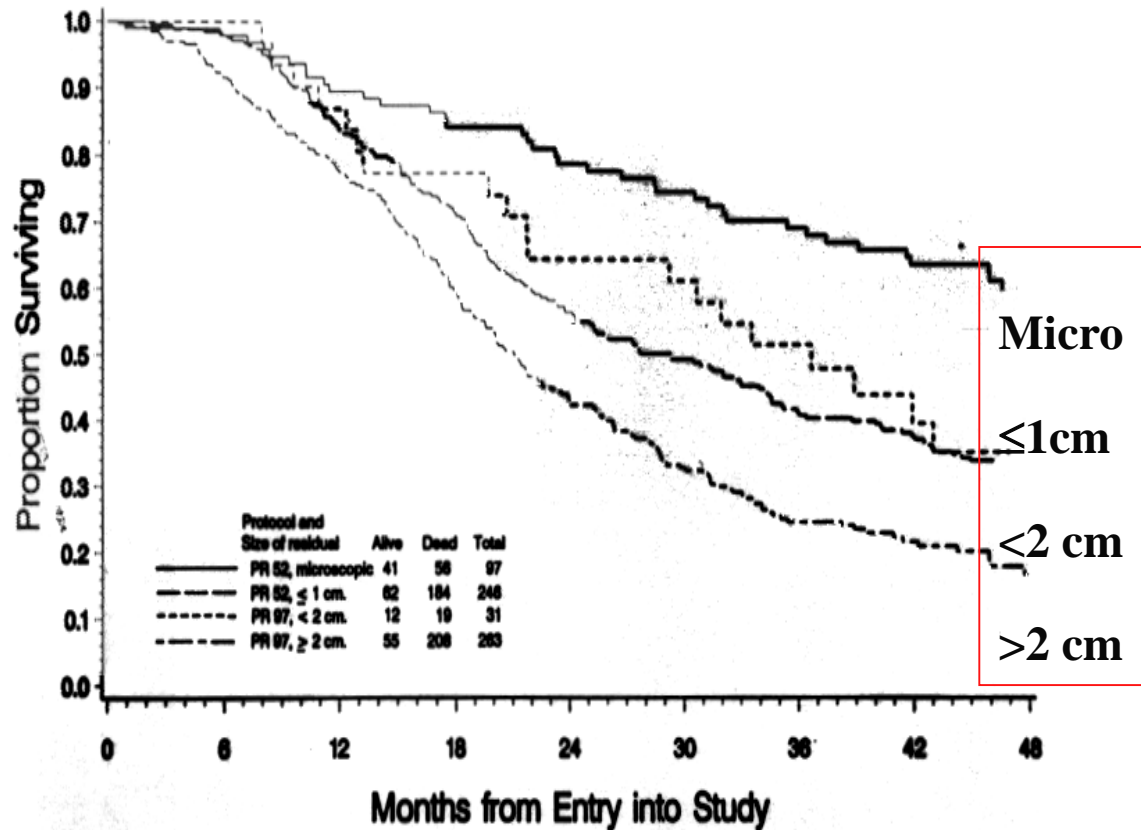


Fig. 2. Survival by residual disease, Gynecologic Oncology Group protocols (PR) 52 and 97.

Int J Gynecol Cancer 2016

Minimal Macroscopic Residual Disease (0.1–1 cm). Is It Still a Surgical Goal in Advanced Ovarian Cancer?

Luis M. Chiva, MD, PhD, Teresa Castellanos, MD, Sonsoles Alonso, MD,
and Antonio Gonzalez-Martin, MD

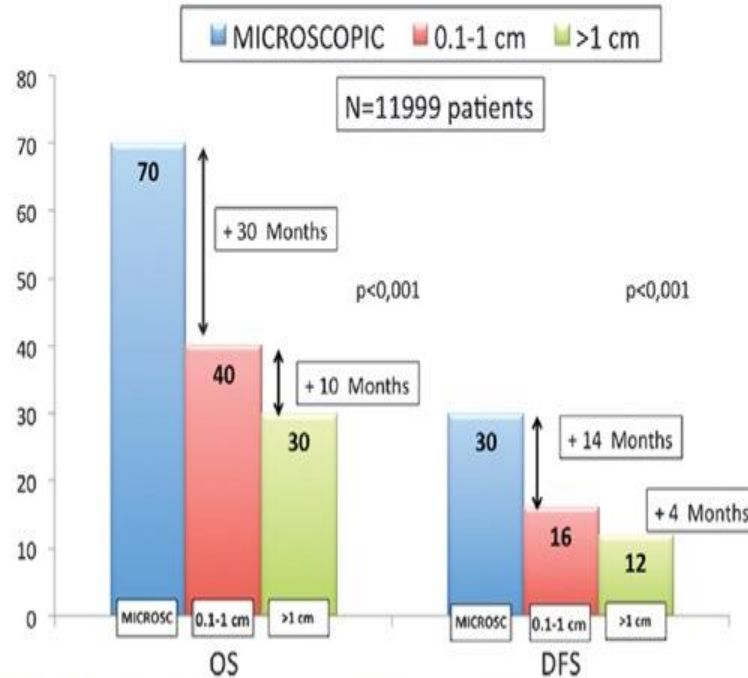


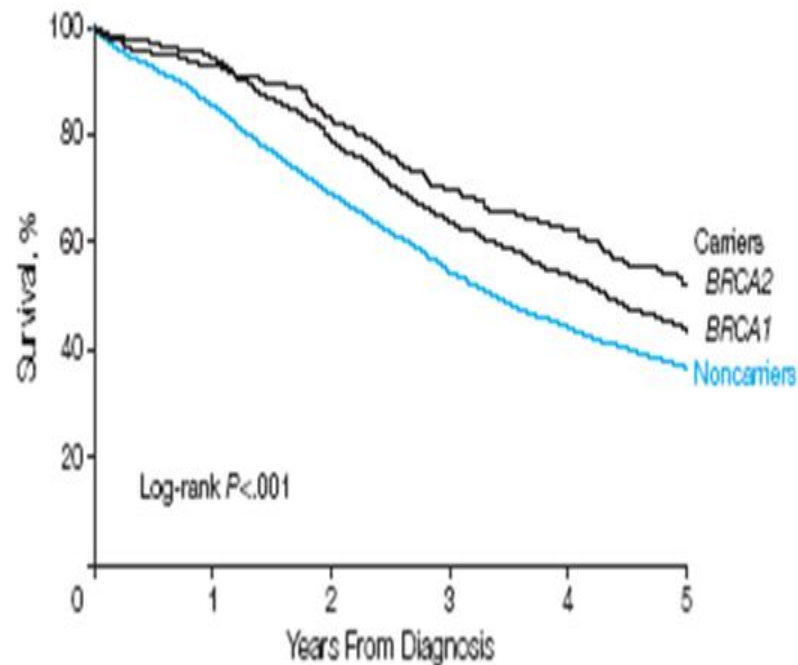
FIGURE 1. Differences in OS and DFS among groups depending on the amount of residual disease.

Predictors of outcome

- Stage
- Age
- Surgical debulking
- Response to chemotherapy
- Serum CA125 levels
- Disease distribution
- Specific microscopic patterns of invasion
- **BRCA status**

Impact for the patient prognosis

Figure. Kaplan-Meier Estimates of Cumulative Survival According to *BRCA1/2* Status



No. at risk

Pooled analysis of 26 observational studies



Risk of complications in patients with conservatively managed ovarian tumours (IOTA5): a 2-year interim analysis of a multicentre, prospective, cohort study

Wouter Froyman, Chiara Landolfo, Bavo De Cock, Laure Wynants, Povilas Sladkevicius, Antonia Carla Testa, Caroline Van Holsbeke, Ekaterini Domali, Robert Fruscio, Elisabeth Epstein, Maria José dos Santos Bernardo, Dorella Franchi, Marek Jerzy Kudła, Valentina Chiappa, Juan Luis Alcazar, Francesco Paolo Giuseppe Leone, Francesca Buonomo, Lauri Hochberg, Maria Elisabetta Coccia, Stefano Guerriero, Nandita Deo, Ligita Jokubkiene, Jeroen Kaijser, An Coosemans, Ignace Vergote, Jan Yvan Verbakel, Tom Bourne, Ben Van Calster, Lil' Valentin, Dirk Timmerman**

Mettere differenza pre e
postmenopausa e
mettere torsione
teratoma



Aggiungere risultati per
diametro cisti

VEDERE IN
APPENDICE



Original Article

INTERNATIONAL JOURNAL OF
GYNECOLOGICAL CANCER

ESMO–ESGO consensus conference recommendations on ovarian cancer: pathology and molecular biology, early and advanced stages, borderline tumours and recurrent disease

N Colombo,¹ C Sessa,² A du Bois,³ J Ledermann,⁴ WG McCluggage,⁵ I McNeish,⁶ P Morice,⁷ S Pignata,⁸ I Ray-Coquard,⁹ I Vergote,^{10,11} T Baert,³ I Belaroussi,⁷ A Dashora,¹² S Olbrecht,^{10,11} F Planchamp,¹³ & D Querleu,¹⁴ on behalf of the ESMO–ESGO Ovarian Cancer Consensus Conference Working Group

**ESMO–ESGO consensus conference
recommendations on ovarian cancer:
pathology and molecular biology, early and
advanced stages, borderline tumours and
recurrent disease**

N Colombo,¹ C Sessa,² A du Bois,³ J Ledermann,⁴ WG McCluggage,⁵ I McNeish,⁶ P Morice,⁷
S Pignata,⁸ I Ray-Coquard,⁹ Vergote,^{10,11} T Baert,⁹ I Belaroussi,⁷ A Dashora,¹² S Olbrecht,^{10,11}
F Planchamp,¹³ & D Querleu,¹⁴ on behalf of the ESMO–ESGO Ovarian Cancer Consensus
Conference Working Group

Recommendation 11.1

The selection of patients for primary debulking surgery or neoadjuvant treatment must be carried out in a specialist ovarian cancer centre, according to the ESGO Quality recommendations 2016¹⁹¹ in a multidisciplinary setting.

Recommendation 11.2

Complete tumour resection at upfront debulking is the most important prognostic factor for patients with advanced ovarian cancer and is the main goal of surgery.



**ADVANCED (STAGE III-IV) OVARIAN
CANCER SURGERY
QUALITY INDICATORS**



Certification for Advanced Ovarian Cancer Surgery

Gynaecologic Oncological Unit

Sant Orsola - Malpighi Hospital, Bologna, Italy

is hereby recognised as an

ESGO CERTIFIED CENTRE

For a time period of 5 years



Prof. David Cibula
President ESGO

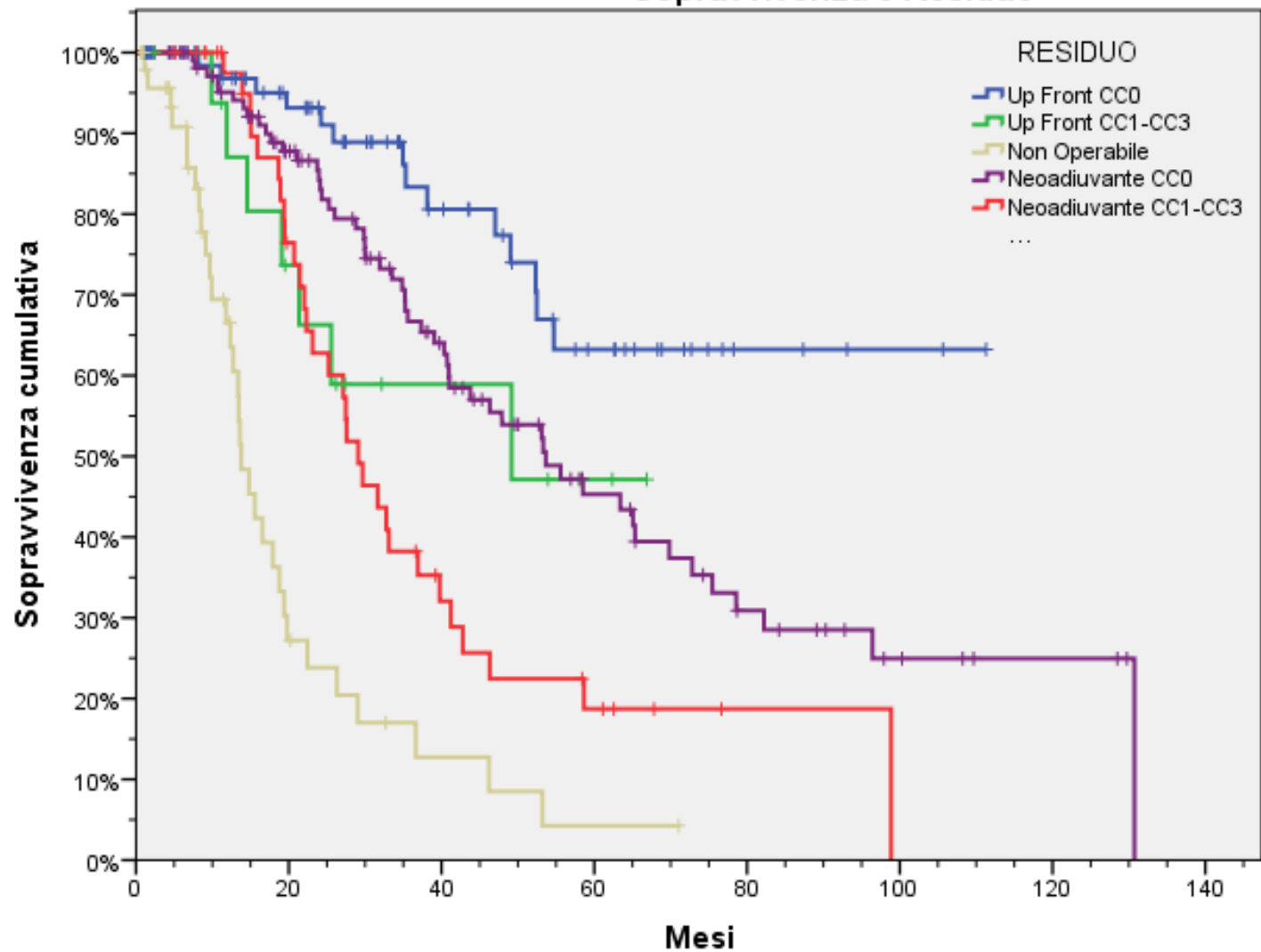


Prof. Denis Querleu
Chair, ESGO Guidelines Committee

Vienna,
March 24, 2017

The European Voice of Gynaecological Oncology

Sopravvivenza e Residuo



PERCORSO REGIONALE: IL CORRETTO APPROCCIO CHIRURGICO DELLA PAZIENTE CON CARCINOMA OVARICO

PERCORSO REGIONALE: IL CORRETTO APPROCCIO CHIRURGICO DELLA PAZIENTE CON CARCINOMA OVARICO

Questo Percorso Regionale ha lo scopo di garantire una corretta gestione chirurgica del paziente con tumore maligno dell'ovaio in modo da offrire a tutte le donne della Regione la migliore sopravvivenza, considerato che la chirurgia riveste oggi un ruolo fondamentale per la prognosi delle pazienti.

- [Crawford SC1](#), [Vasey PA](#), [Paul J](#), [Hay A](#), [Davis JA](#), [Kaye SB](#). Does aggressive surgery only benefit patients with less advanced ovarian cancer? Results from an international comparison within the SCOTROC-1 Trial. [J Clin Oncol](#). 2005 Dec 1;23(34):8802-11.
- Hoskins WJ, Bundy BN, Thigpen JT, Omura GA. The influence of cytoreductive surgery on recurrence-free interval and survival in small-volume stage III epithelial ovarian cancer: a Gynecologic Oncology Group study. [Gynecol Oncol](#). 1992;47(2):159.
- Winter WE 3rd, Maxwell GL, Tian C, Carlson JW, Ozols RF, Rose PG, Markman M, Armstrong DK, Muggia F, McGuire WP, Gynecologic Oncology Group Study. Prognostic factors for stage III epithelial ovarian cancer: a Gynecologic Oncology Group Study. [J Clin Oncol](#). 2007;25(24):3621.
- Wright AA, Bohlke K, Armstrong DK, Bookman MA, Cliby WA, Coleman RL, Dizon DS, Kash JJ, Meyer LA, Moore KN, Olawaiye AB, Oldham J, Salani R, Sparacio D, Tew WP, Vergote I, Edelson MI. Neoadjuvant Chemotherapy for Newly Diagnosed, Advanced Ovarian Cancer: Society of Gynecologic Oncology and American Society of Clinical Oncology Clinical Practice Guideline. [J Clin Oncol](#). 2016;34(28):3460.
- [Chang SJ1](#), [Bristow RE2](#), [Chi DS3](#), [Cliby WA4](#). Role of aggressive surgical cytoreduction in advanced ovarian cancer. [J Gynecol Oncol](#). 2015 Oct;26(4):336-42.

Un'errata gestione chirurgica compromette la sopravvivenza della paziente. I dati della Letteratura indicano che le pazienti trattate nei Centri ad alto volume che seguono le linee guida internazionali presentano le sopravvivenze migliori.

- [Dottino JA, Cliby WA, Myers ER, Bristow RE, Havrilesky LJ](#). Improving NCCN guideline-adherent care for ovarian cancer: Value of an intervention. [Gynecol Oncol](#). 2015 Sep;138(3):694-9
- [Bristow RE, Chang J, Zogas A, Campos B, Chavez LR, Anton-Culver H](#). Impact of National Cancer Institute Comprehensive Cancer Centers on ovarian cancer treatment and survival. [J Am Coll Surg](#). 2015 May;220(5):940-50.
- [Cowan RA, O'Ceirbhail RE, Gardner GJ, Levine DA, Roche KL, Sonoda Y, Zivanovic O, Tew WP, Sala E, Lakhman Y, Vargas Alvarez HA, Sarasohn DM, Mironov S, Abu-Rustum NR, Chi DS](#). Is It Time to Centralize Ovarian Cancer Care in the United States? [Ann Surg Oncol](#). 2016 Mar;23(3):989-93.

1. PROBLEMATICA

ADEGUATO MONITORAGGIO DELLA NELLA GESTIONE DEL TUMORE OVARICO NELLA REGIONE EMILIA-ROMAGNA

- discrepanza tra i dati SDO ottenuti dalla valutazione centralizzata e i dati riportati dai singoli Centri
- importanza della corretta analisi dei dati
 - nuovi casi
 - numero laparoscopie diagnostiche (casi avanzati)
 - numero di casi iniziali/avanzati
 - numero di interventi chirurgici
 - numero di chirurgia upfront/di intervallo

RISOLUZIONE

- APPLICAZIONE DA PARTE DI TUTTI I CENTRI REGIONALI DI UN PROTOCOLLO DRG CONDIVISO, IN MANIERA DA OTTENERE DATI PRECISI, INCONTESTABILI E BASE PER FUTURE DECISIONI e per adeguata remunerazione del centro
- Dr.ssa Lucchi del Policlinico S.Orsola-Malpighi presenterà un sistema di codifica da distribuire in tutti i centri regionali

2. PROBLEMATICA

VALUTAZIONE DEI CENTRI IN GRADO DI ESEGUIRE UN TRATTAMENTO CHIRURGICO PER IL TUMORE OVARICO

- requisiti minimi richiesti dalle Linee Guida Nazionali

RISOLUZIONE

- IDENTIFICAZIONE DELLA PRESENZA DEI REQUISITI MINIMI PER IL TRATTAMENTO DEL TUMORE OVARICO
 - **Disponibilità di esame istologico al congelatore (estemporaneo)**
 - **Presenza di Terapia Intensiva Post-chirurgica**



**ADVANCED (STAGE III-IV) OVARIAN
CANCER SURGERY
QUALITY INDICATORS**



QI 2 -Number of cytoreductive surgeries performed per center and per surgeon per year

| | |
|----------------|---|
| TYPE | Structural indicator (number of upfront or interval cytoreductive surgeries performed per center). Process indicator (number of surgeries per surgeon per year). |
| DESCRIPTION | Only surgeries with an initial objective of complete cytoreduction are recorded. Exploratory endoscopies, exploratory laparotomies, or surgeries limited to tissue biopsy that do not include at least a bilateral salpingo-oophorectomy (if applicable), hysterectomy (if applicable), and a comprehensive peritoneal staging including omentectomy are not included. |
| SPECIFICATIONS | <p><i>Numerator:</i> (i) number of cytoreductive surgeries as defined above performed per center per year. (ii) number of cytoreductive surgeries as defined above performed per surgeon per year. Secondary and tertiary procedures are accepted.</p> <p><i>Denominator:</i> not applicable.</p> |
| TARGET(S) | <p>(i) Number of surgeries performed per center per year:</p> <ul style="list-style-type: none">• <i>Optimal target:</i> $N \geq 100$.• <i>Intermediate target:</i> $N \geq 50$.• <i>Minimum required target:</i> $N \geq 20$ <p>(ii) $\geq 95\%$ of surgeries are performed or supervised by surgeons operating at least 10 patients a year.</p> |

QI 1 -Rate of complete surgical resection

TYPE

Outcome indicator.

DESCRIPTION

Complete abdominal surgical resection is defined by the absence of remaining macroscopic lesions after careful exploration of the abdomen. Whenever feasible, localized thoracic disease is resected. Surgery can be decided upfront, or planned after neoadjuvant chemotherapy. However, the quality assurance program must take into account that patients who can be operated upfront with a reasonable complication rate benefit most from primary debulking surgery.

SPECIFICATIONS

(i) Complete resection rate:

- *Numerator*: number of patients with advanced ovarian cancer undergoing complete surgical resection.
- *Denominator*: all patients with advanced ovarian cancer referred to the center.

(ii) Proportion of patients who are operated upfront (*based on evidence from the EORTC 55971 trial, only patients presenting with low metastatic volume (peritoneal metastases less than 5 cm in diameter) are considered; patients with unresectable parenchymal metastases are excluded*).

- Numerator: patients who are offered upfront surgery.
- Denominator: all patients not previously treated.

TARGET(S)

(i) Complete resection rate:

- *Optimal target*: > 65%.
- *Minimum required target*: > 50%.

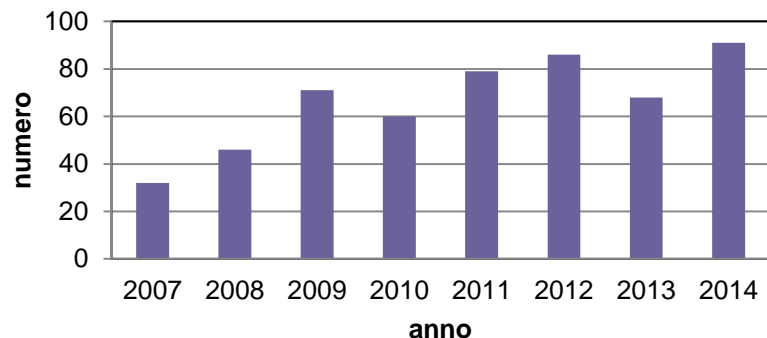
(ii) Proportion of patients who are operated upfront: >80%

**EPITHELIAL OVARIAN CANCER
2015-2016**

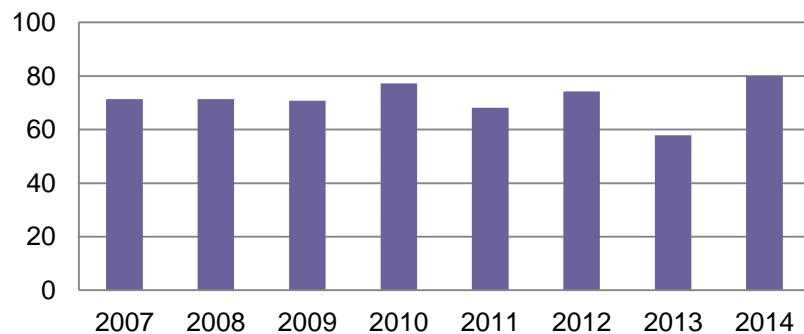
| | |
|--|------------|
| NEW DIAGNOSIS | 228 |
| UPFRONT SURGICAL PROCEDURES | 141 |
| DIAGNOSTIC LAPAROSCOPY (UPFRONT, POST-CHEMO, RELAPSE) | 117 |
| INTERVAL DEBULKING SURGERY | 58 |
| SURGERY FOR RELAPSE | 33 |
| HIPEC PROCEDURES | 14 |

Evoluzione del trattamento del carcinoma ovarico avanzato Bologna 2007/2014

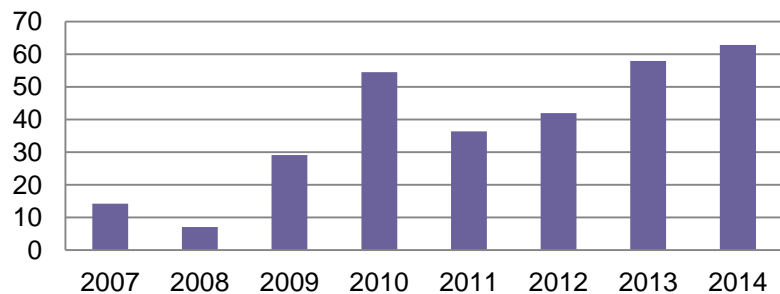
numero pazienti con ca ovarico trattate per anno



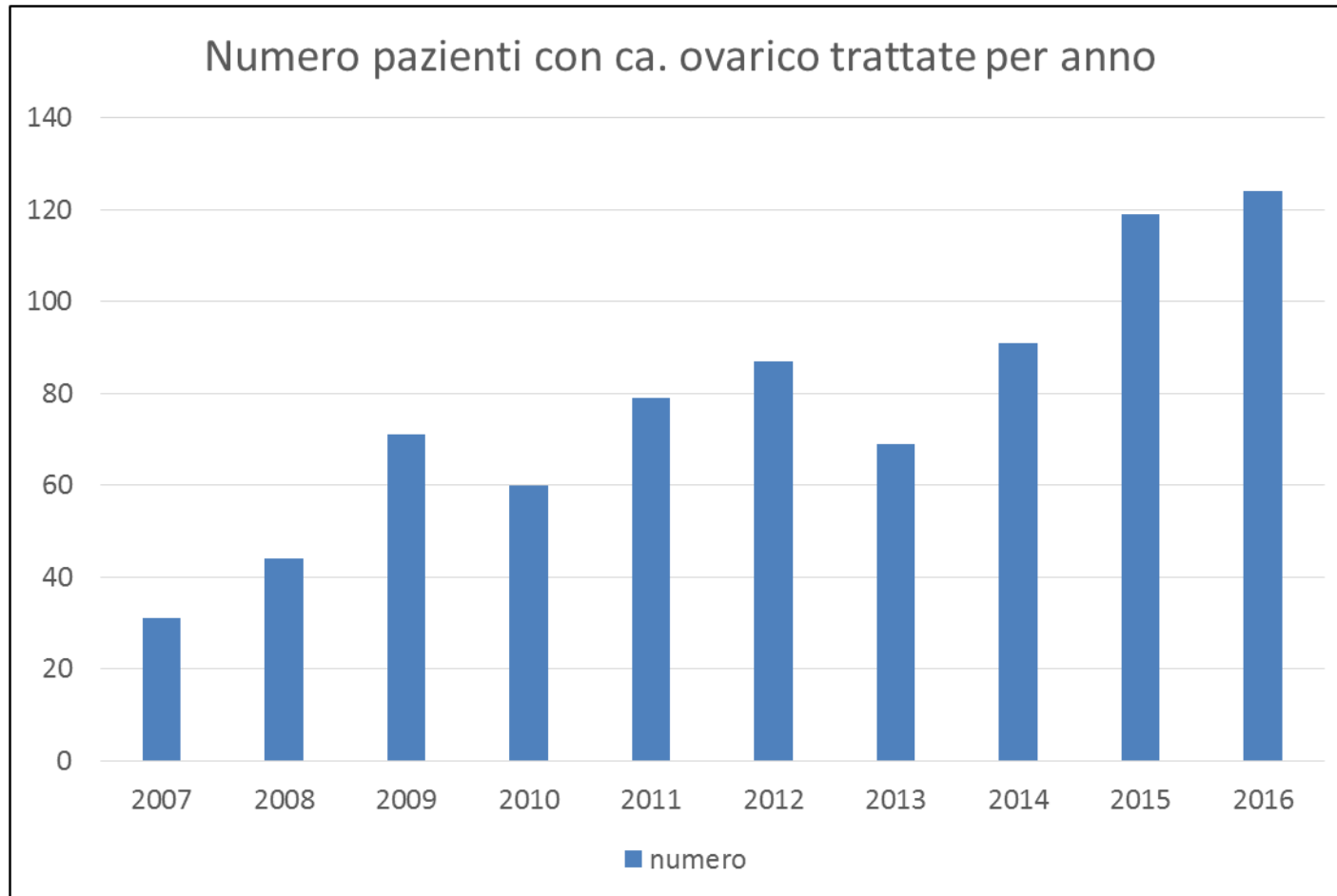
incidenza (%) CC0 in pazienti operate in up-front per anno



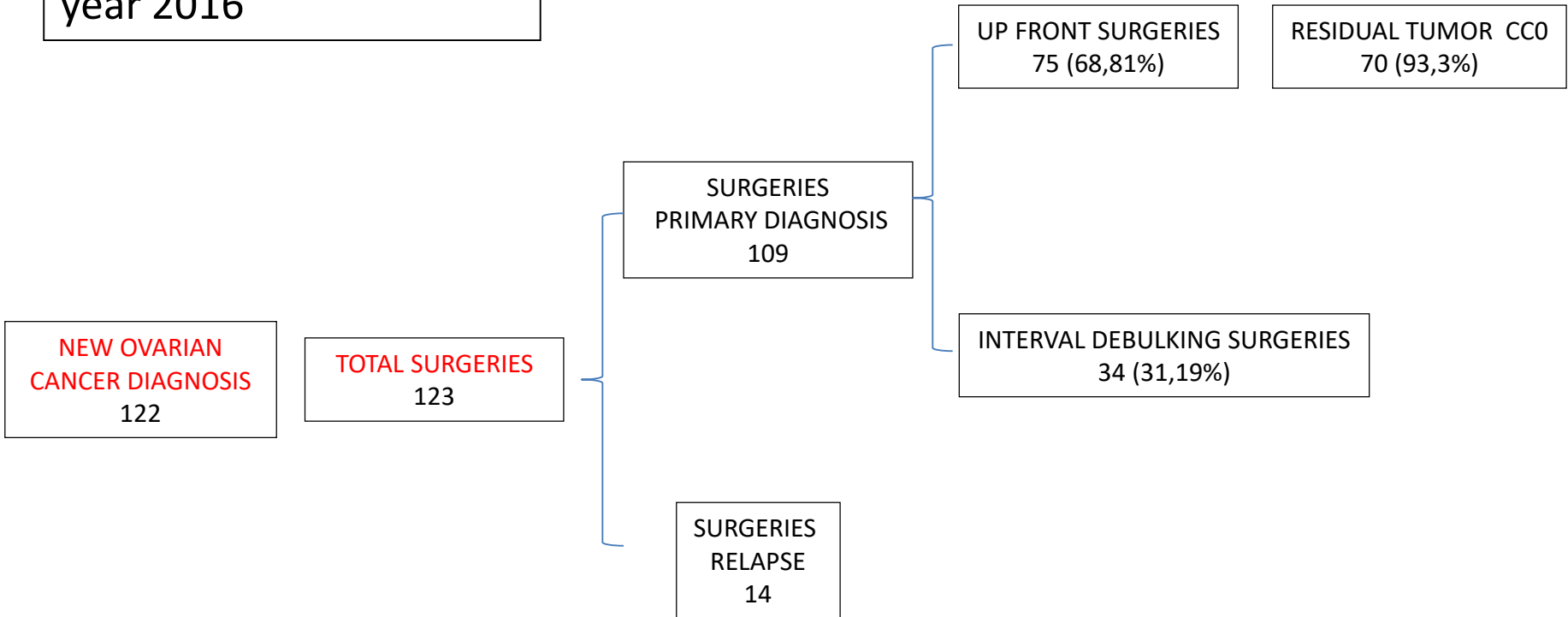
incidenza (%) resezioni intestinali in stadi III-IV operate in up-front



Evoluzione del trattamento del carcinoma ovarico avanzato Bologna 2007/2016



OVARIAN CANCER CASES year 2016



CHIRURGIA CARCINOMA OVARICO STADIO III-IV
Bologna

| | 2000-2004 | 2005-2009 | 2010-2014 |
|---------------------------------|------------------|------------------|------------------|
| 3 year survival | 75% | 72% | 87% |
| Resezioni intestinali | 12% | 24% | 40% |
| Resezioni diaframmatiche | 3% | 13% | 25% |

**BORDERLINE OVARIAN
2015-2016**

| | |
|--|-----------|
| NEW DIAGNOSIS | 35 |
| SURGICAL PROCEDURES | 40 |
| UPFRONT SURGICAL PROCEDURES | 35 |
| SURGICAL PROCEDURES FOR RELAPSE | 5 |

ADVANCED (STAGE III-IV) OVARIAN CANCER SURGERY

Quality Indicators

Self-assessment form



QUALITY INDICATORS**TICK IF APPLICABLE**
*(scoring rules)***1. Rate of complete surgical resection***1.1. Rate of complete surgical resection*> 65 % (score: 5)51-65 % (score: 3)≤ 50 % (score: 0)*1.2. Rate of primary debulking surgeries*≥ 50% (score: 3)< 50% (score: 0)**2. Number of cytoreductive surgeries performed per center and per surgeon per year***2.1. Number of cytoreductive surgeries performed per center per year*≥ 100 (score: 5)50-99 (score: 3)20-49 (score: 1)*2.2. Surgeries supervised or performed by surgeons operating at least 10 patients a year*≥ 95% (score: 3)< 95% (score: 0)**3. Surgery performed by a gynecologic oncologist or a trained surgeon specifically dedicated to gynaecological cancers management**≥ 90% (score: 3)< 90% (score: 0)

| | | | |
|--|---|-------------------------------------|------------|
| 4. Center participating in clinical trials in gynecologic oncology | yes | <input checked="" type="checkbox"/> | (score: 3) |
| | no | <input type="checkbox"/> | (score: 0) |
| 5. Treatment planned and reviewed at a multidisciplinary team meeting | ≥ 95% | <input checked="" type="checkbox"/> | (score: 3) |
| | < 95% | <input type="checkbox"/> | (score: 0) |
| 6. Required preoperative workup | ≥ 95% | <input checked="" type="checkbox"/> | (score: 3) |
| | < 95% | <input type="checkbox"/> | (score: 0) |
| 7. Pre-, intra-, and post-operative management | yes | <input checked="" type="checkbox"/> | (score: 3) |
| | no | <input type="checkbox"/> | (score: 0) |
| 8. Minimum required elements in operative reports | ≥ 90% | <input checked="" type="checkbox"/> | (score: 3) |
| | < 90% | <input type="checkbox"/> | (score: 0) |
| 9. Minimum required elements in pathology reports | ≥ 90% | <input checked="" type="checkbox"/> | (score: 3) |
| | < 90% | <input type="checkbox"/> | (score: 0) |
| 10. Existence of a structured prospective reporting of postoperative complications | All complications are prospectively recorded | <input type="checkbox"/> | (score: 3) |
| | There is no prospective complication database but selected cases are discussed at morbidity and mortality conferences | <input type="checkbox"/> | (score: 1) |
| | Other situations | <input checked="" type="checkbox"/> | (score: 0) |

⇒ PLEASE REGISTER THE SUM OF YOUR SCORES **37**

Certification for Advanced Ovarian Cancer Surgery

Gynaecologic Oncological Unit

Sant Orsola - Malpighi Hospital, Bologna, Italy

is hereby recognised as an

ESGO CERTIFIED CENTRE

For a time period of 5 years



Prof. David Cibula
President ESGO



Prof. Denis Querleu
Chair, ESGO Guidelines Committee

Vienna,
March 24, 2017

The European Voice of Gynaecological Oncology

Certificate of Accreditation

Sant'Orsola-Malpighi Hospital

Gynecologic Oncology Unit, Bologna, Italy

is recognised as an accredited

European Training Centre in Gynaecological Oncology

For a time period of 5 years



Prof. David Cibula
President ESGO



Ass. Prof. Dimitrios Haidopoulos
Chair, ESGO Fellowships
and accreditations committee

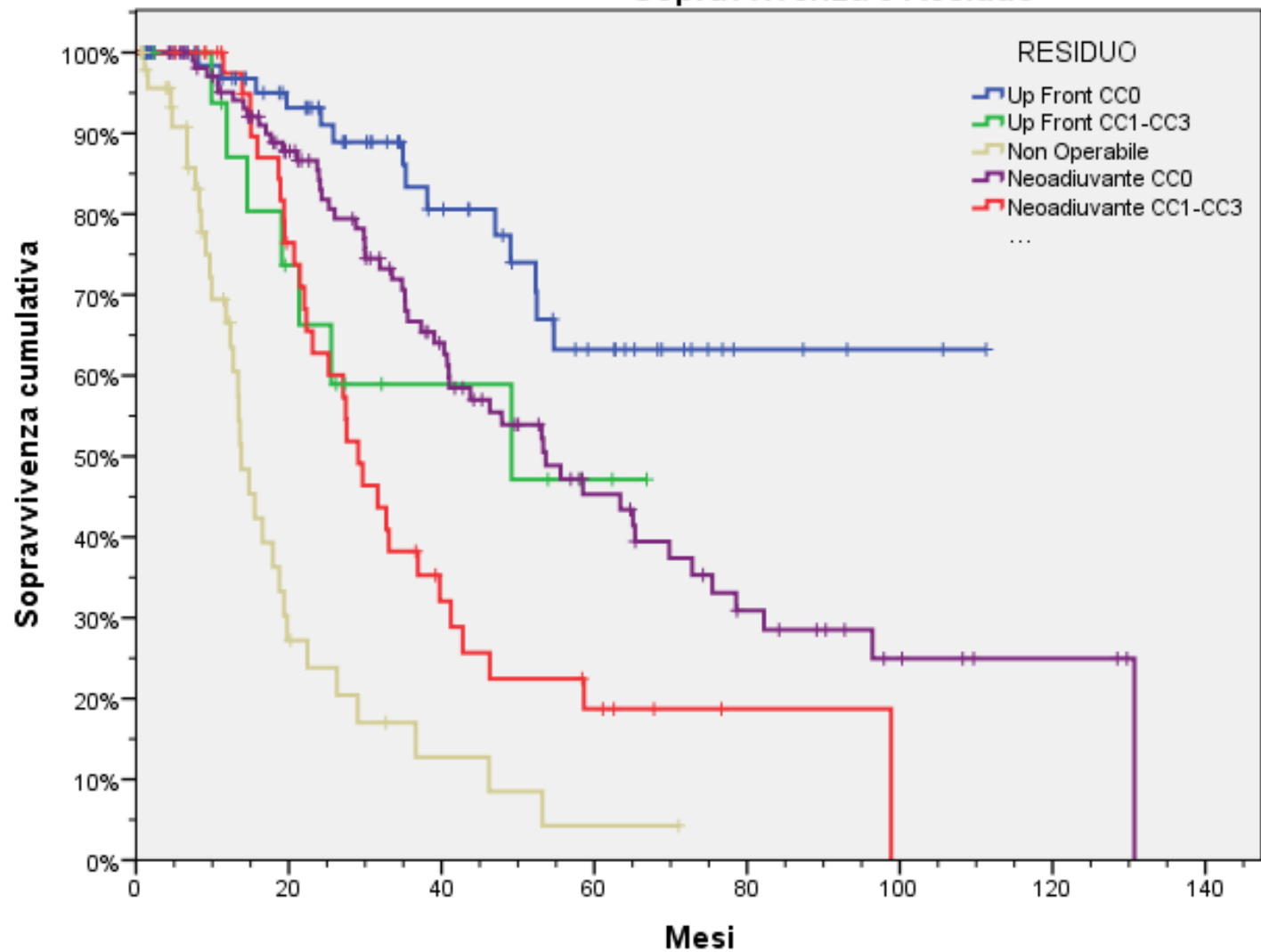
Prague,
May 12, 2017

The European Voice of Gynaecological Oncology

CHIRURGIA OVAIO: RECIDIVA SU CC0

| TIME | 2009-2011 | | 2012-2014 | |
|------------------|--------------------------|---------------------------------|--------------------------|---------------------------------|
| | N. Interventi Chirurgici | Recidiva a 30 mesi da Chirurgia | N. Interventi Chirurgici | Recidiva a 30 mesi da Chirurgia |
| Stadi III IV | 109 | | 183 | |
| Residuo 0 (CC0) | 79 | 44 (55.7%) | 117 | 56 (50.4%) |
| Neoad.+Chirurgia | 39 | 28 (71.8%) | 53 | 27 (50.9%) |
| Up Front | 40 | 16 (40.0%) | 64 | 29 (45.3%) |

Sopravvivenza e Residuo



PROTOCOLLO DIAGNOSTICO

‘Pattern recognition’ of specific ultrasound findings can produce sensitivity and specificity equivalent to logistic regression models, especially when performed by more experienced clinicians specialising in women’s imaging.

Repeating ultrasound assessment in the postmenstrual phase may be helpful in cases of doubt and endometrial views may contribute to diagnosis in cases of estrogen-secreting tumours of the ovary.



Management of Suspected Ovarian
Masses in Premenopausal Women

Green-top Guideline No. 62
RCOG/BSGE Joint Guideline | November 2011

it is reasonable to manage these simple cysts conservatively: with a follow-up assessment of serum CA125 and a repeat ultrasound scan.

The ideal frequency of repeat imaging is yet to be determined. A reasonable proposed interval is 4–6 months.

This, of course, depends upon the views and symptoms of the woman, her surgical fitness and on the clinical assessment.

It is reasonable to discharge these women from follow-up after 1 year if the cyst remains unchanged or reduces in size, with normal CA125