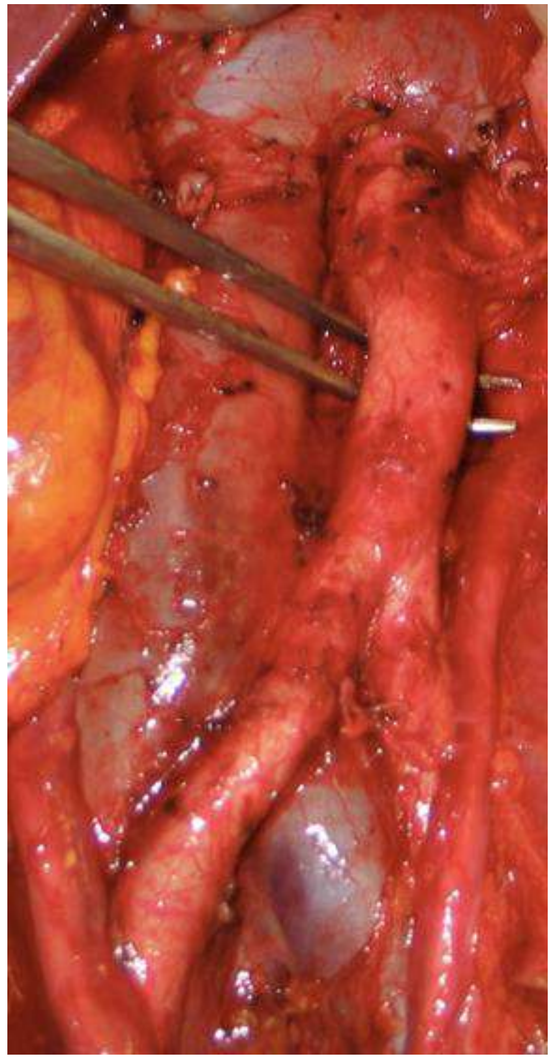
19èmes Journées Daniel Dargent
de Chirurgie Gynécologique, Cancérologique et Mammaire

INSTITUT DE CANCÉROLOGIE ARSÈNE BURNY
CHU de Liège

CANCER DE L'ENDOMÈTRE ET GANGLION SENTINELLE : UNE TECHNIQUE FIABLE

F KRIDELKA, A KAKKOS, F GOFFIN, S SCHOENEN, CH GENNIGENS, E GONNE, K DELBECQUE, A THILLE, D DANTHISNE, P LOVINFOSSE, M PIRON, C MARRUCCIA, L KEMPENEERS ET M TYCHON

Regional Lymph Nodes (N)		
TNM system, N category	FIGO system	N criteria
NX		Regional lymph nodes cannot be assessed
N0		No regional lymph node metastasis
N0(i+)		Isolated tumor cells in regional lymph node, ≤0.2 mm in diameter
N1mi	IIIC1	Regional lymph node micrometastasis (>0.2 mm to 2.0 mm in diameter) to pelvic lymph nodes
N1	IIIC1	Regional lymph node macrometastasis (>2.0 mm in diameter) to pelvic lymph nodes
N2mi	IIIC2	Regional lymph node micrometastasis (>0.2 mm to 2.0 mm in diameter) to paraaortic lymph nodes, with or without positive pelvic lymph nodes
N2	IIIC2	Regional lymph node macrometastasis (>2.0 mm in diameter) to paraaortic lymph nodes, with or without positive pelvic lymph nodes



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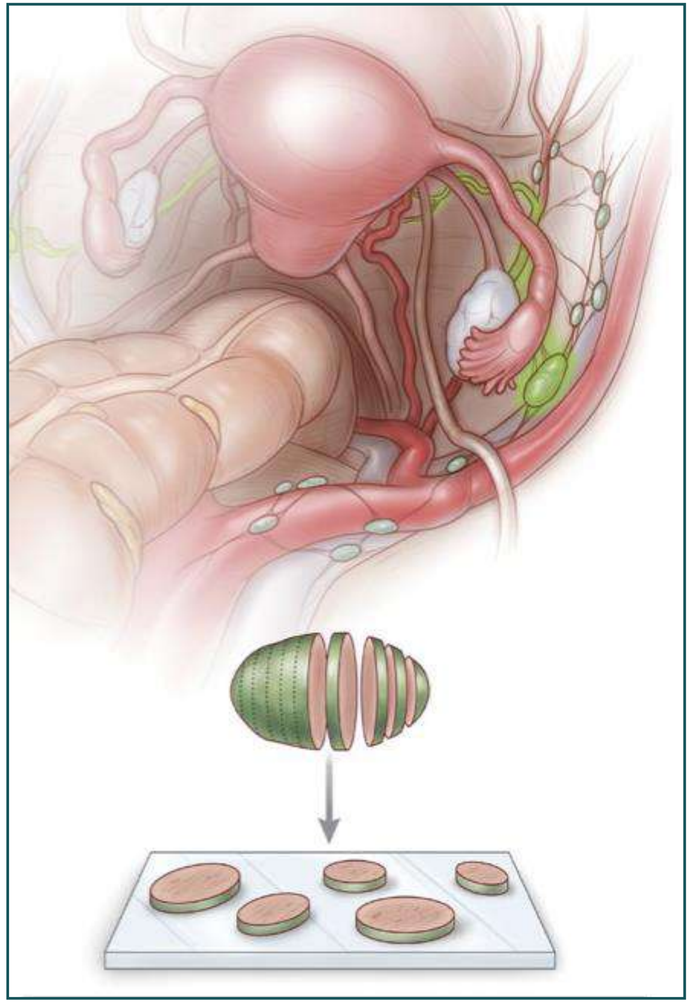
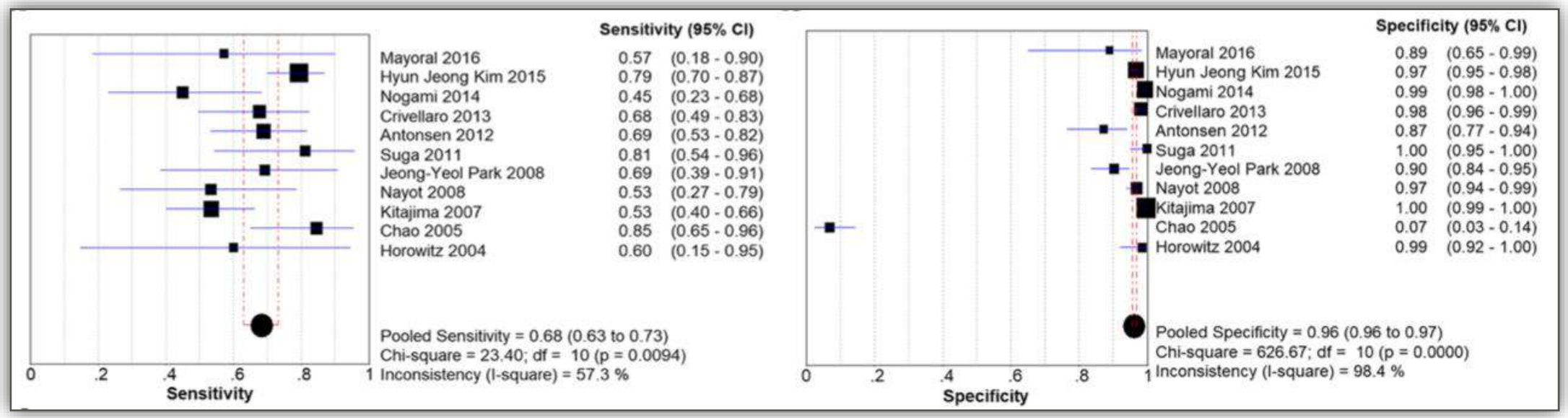
GS : OBTENIR L'INFORMATION PRONOSTIQUE GANGLIONNAIRE DE MANIÈRE FIABLE, PEU MORBIDE ET SÉCURITAIRE



Diagnostic accuracy of preoperative ^{18}F-FDG PET or PET/CT in detecting pelvic and para-aortic lymph node metastasis in patients with endometrial cancer: a systematic review and meta-analysis

GANGLIONS PELVIENS ET PA



19 ETUDES - 1431 PATIENTES

Hu et al. Arch Gyn Obstet 2019

Endometrial Cancer (SHREC-trial)—the final step towards a paradigm shift in surgical staging

ICG SLN ALGORITHM

ICG 2,5MG/ML SOLUTION

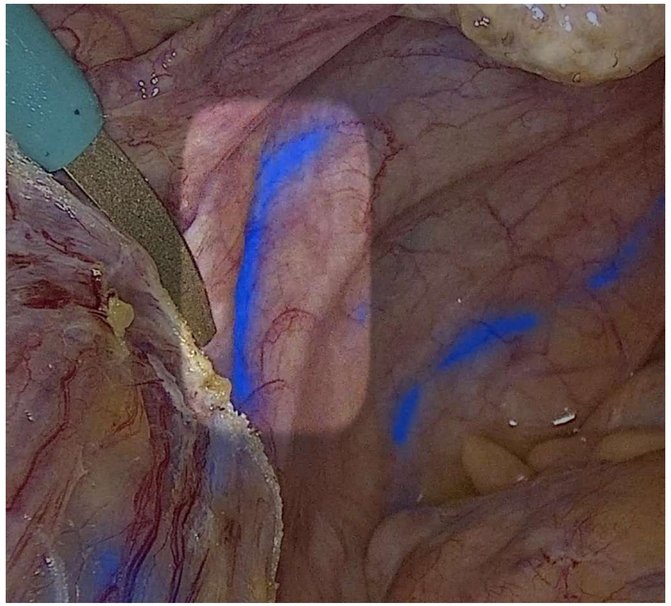
23G NEEDLE

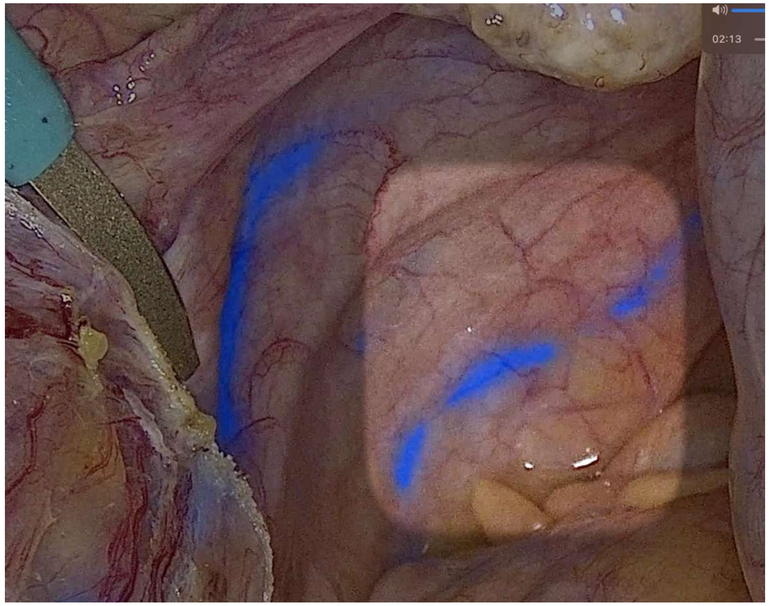
O,25 ML AT 0,3,6,9 O'CLOCK SUBMUCOSALLY AND AT 3 CM STROMA

DETECTION OF LPP AND UPP CHANNELS WITH FIREFLY TECHNIQUE

DEFINITION OF SLN TYPE 1, 2, MACRO

IPSILATERAL REINJECTION AT 3 OR 9 AFTER 10 MINUTES IF SLN FAILURE





Persson et al. Eur J Cancer 2019

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ICG SLN ALGORYTHM

SE : 98% NPV : 99,5%

BILATERAL DETECTION RATE

82% / 95% AFTER REINJECTION
(FAILURE 8/54 IF LNM - 6/203 IF LN NEG)

Persson et al. Eur J Cancer 2019

Endometrial Cancer (SHREC-trial)—the final step towards a paradigm shift in surgical staging

ICG SLN ALGORITHM

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ICG SLN ALGORYTHM

NOMBRE MOYEN DE SLN : 4

52 DES 54 PATIENTES + IDENTIFIÉES PAR ICG ALG

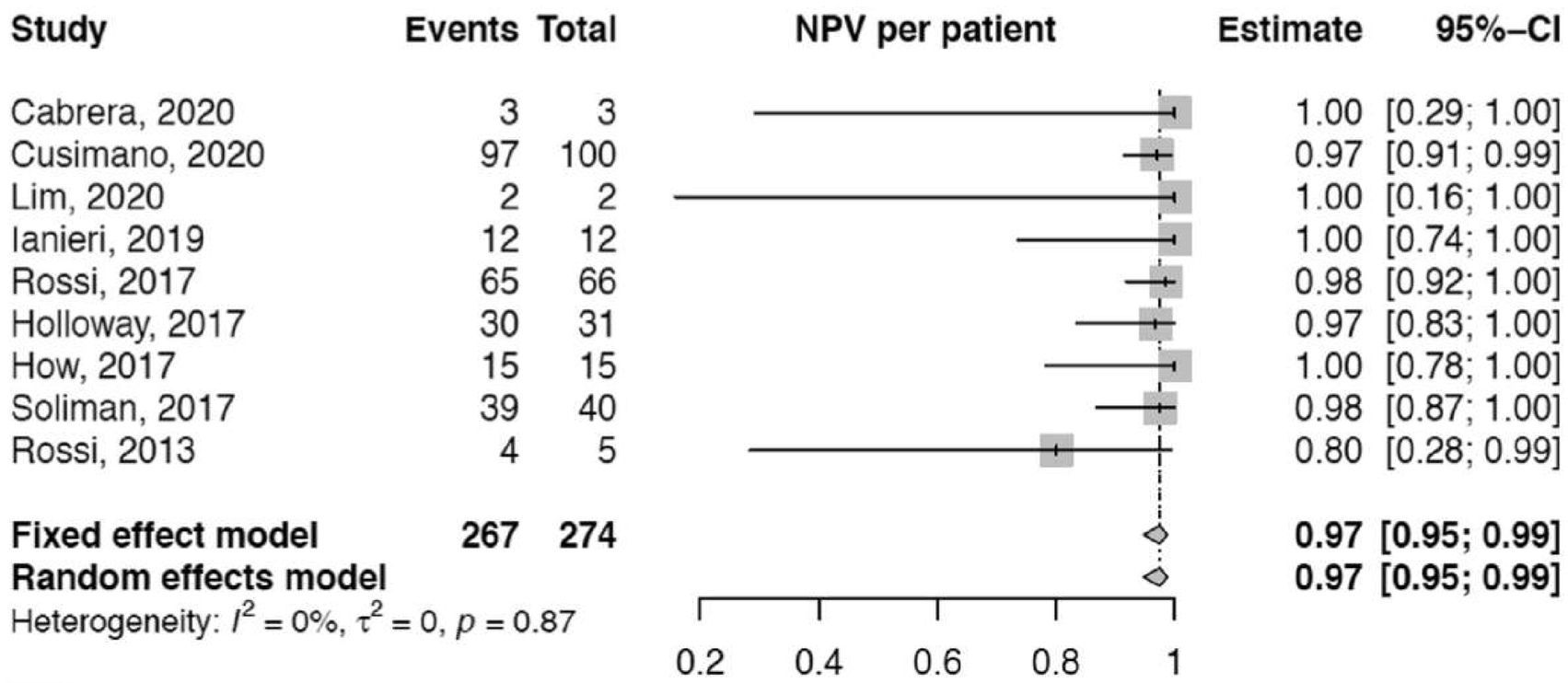
37% DES STATUTS + ÉTAIENT MICROMÉTASTATIQUES

IMPORTANCE DE LA VOIE UPP
20% DES CAS + ONT UN DRAINAGE UPP
POUR 27% D'ENTRE ELLES, DRAINAGE UPP EXCLUSIF

TAUX DE MÉTASTASES PA ISOLÉES : 2%

Persson et al. Eur J Cancer 2019

Endometrial Cancer (SHREC-trial)—the final step towards a paradigm shift in surgical staging

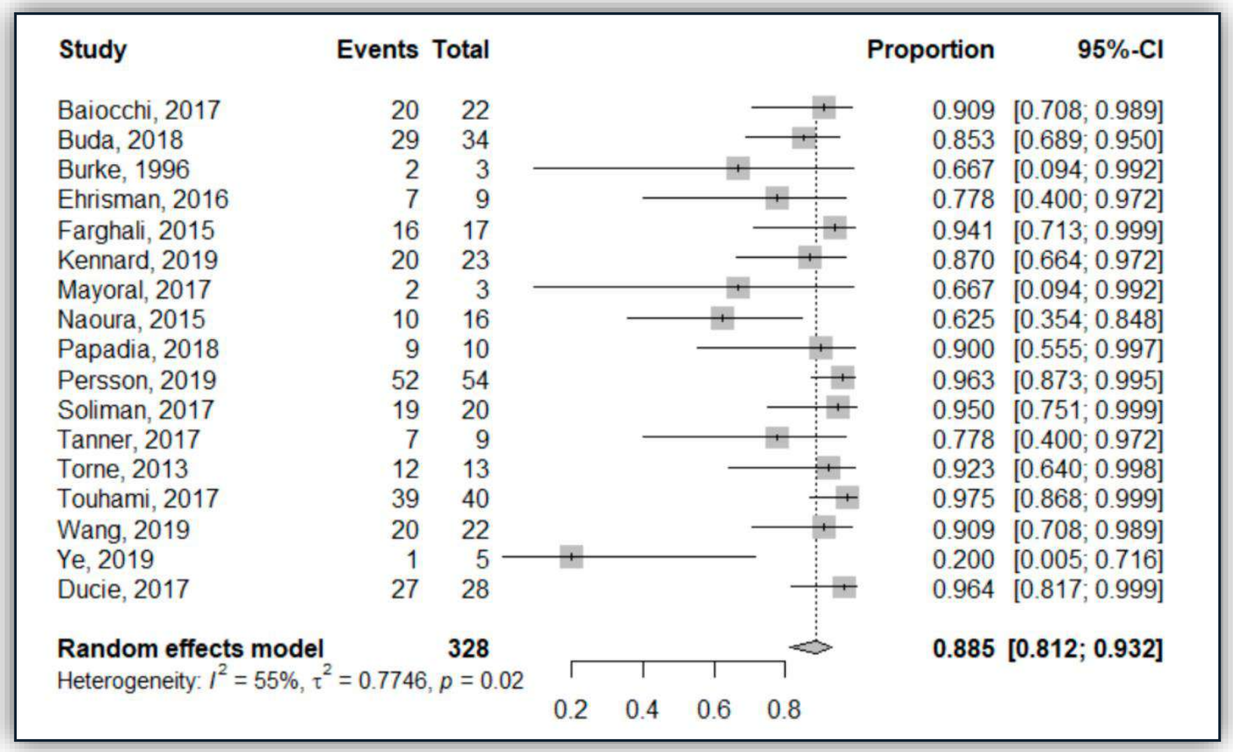


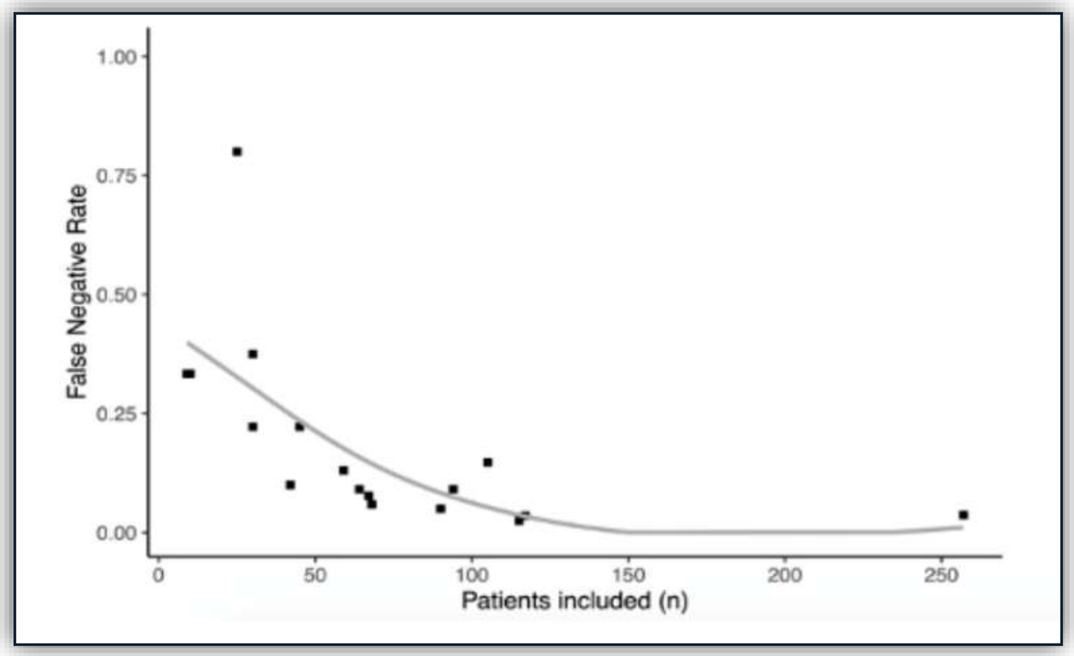
Marchoki et al. AJOG 2022

Review

Diagnostic Accuracy and Clinical Impact of Sentinel Lymph Node Sampling in Endometrial Cancer at High Risk of Recurrence: A Meta-Analysis

17 ETUDES - 1322 PATIENTES





Lecointre et al. J Clin Med 2020

GS : FIABILITÉ DE DÉTECTION DES STADES IIIC (IN HR EC)

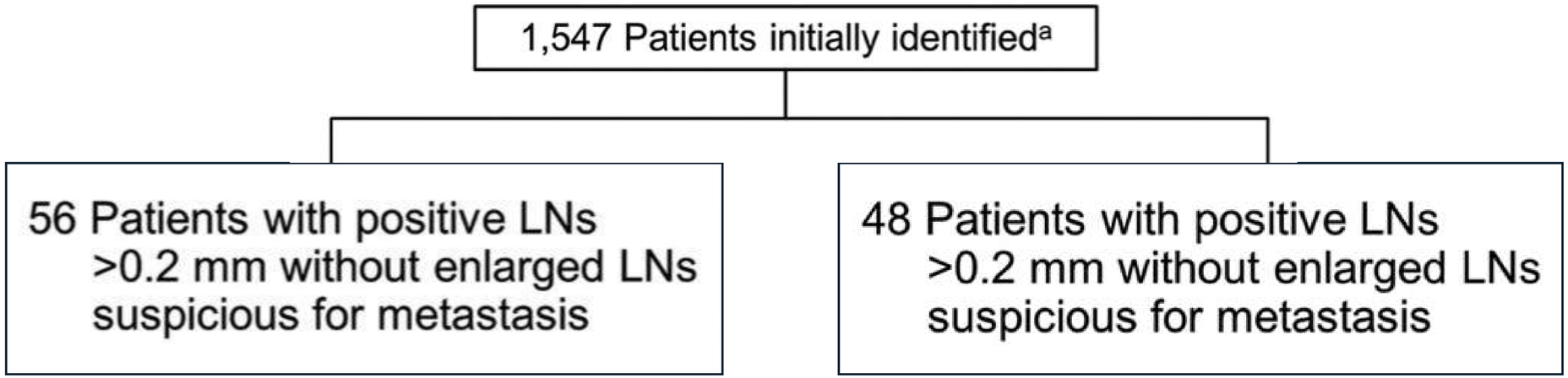
Comparison of a sentinel lymph node mapping algorithm and comprehensive lymphadenectomy in the detection of stage IIIC endometrial carcinoma at higher risk for nodal disease

Nodal assessment patterns in the "high-risk" group.

Characteristic	SLN N = 120	LND N = 103	P†
Pelvic lymphadenectomy, N (%)			0.001
No	3 (2.5)	15 (14.6)	
Yes	117 (97.5)	88 (85.4)	
Number of pelvic nodes removed median (IQR)*			
Right	5 (2, 8)	15 (12, 21)	<0.001
Left	5 (2, 8)	16 (13, 20)	<0.001
Total	11 (5, 16)	30 (26, 41)	<0.001
Positive pelvic nodes, N (%)			0.57
No or pelvic LND not done	93 (77.5)	83 (80.6)	
Yes	27 (22.5)	20 (19.4)	
Positive pelvic nodes, N (%)*			0.95
No	90 (76.9)	68 (77.3)	
Yes	27 (23.1)	20 (22.7)	
Number of positive pelvic nodes among those with positive nodes, median (IQR)			
Right	1 (0, 1)	2 (1, 5)	
Left	1 (0, 2)	1 (0, 2)	
Total	1 (1, 2)	2 (1, 10)	
Paraaortic lymphadenectomy, N (%)			<0.001
No	64 (53.3)	21 (20.4)	
Yes	56 (46.7)	82 (79.6)	
Number of paraaortic nodes removed, median (IQR)*	4 (3, 8)	17 (11, 23)	<0.001
Positive paraaortic nodes, N (%)			0.29
No or paraaortic LND not done	110 (91.7)	90 (87.4)	
Yes	10 (8.3)	13 (12.6)	
Positive paraaortic nodes, N (%)*			0.76
No	46 (82.1)	69 (84.1)	
Yes	10 (17.9)	13 (15.9)	

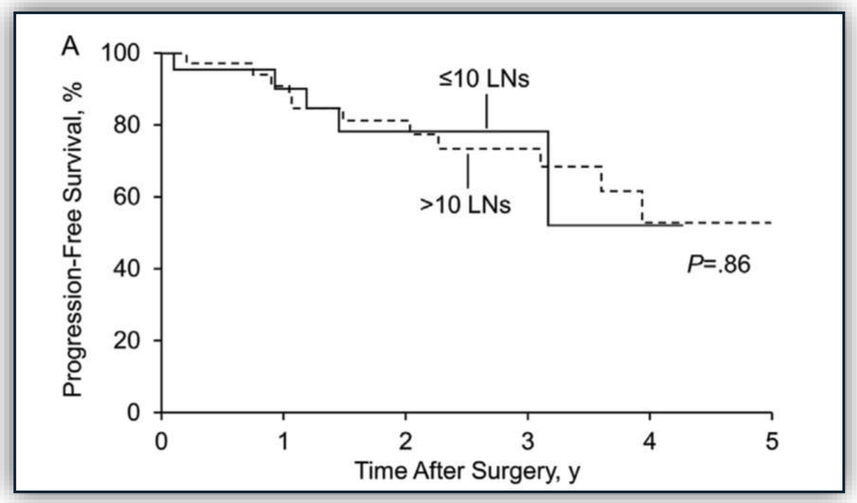
Ducie et al. Gyneco Onco 2017

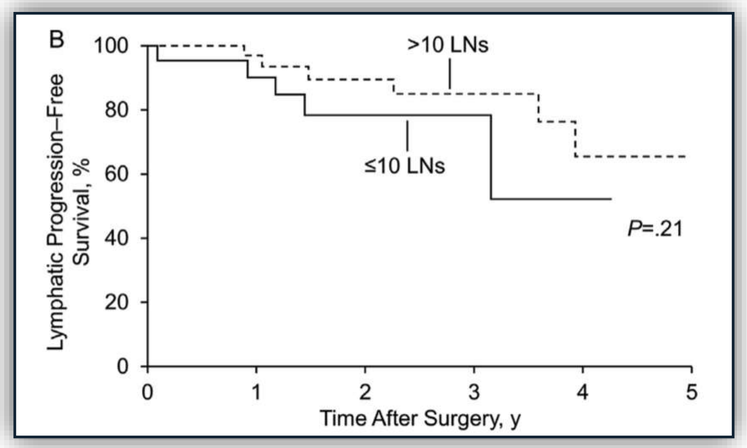
Role of lymphadenectomy in endometrial cancer with nonbulky lymph node metastasis: Comparison of comprehensive surgical staging and sentinel lymph node algorithm

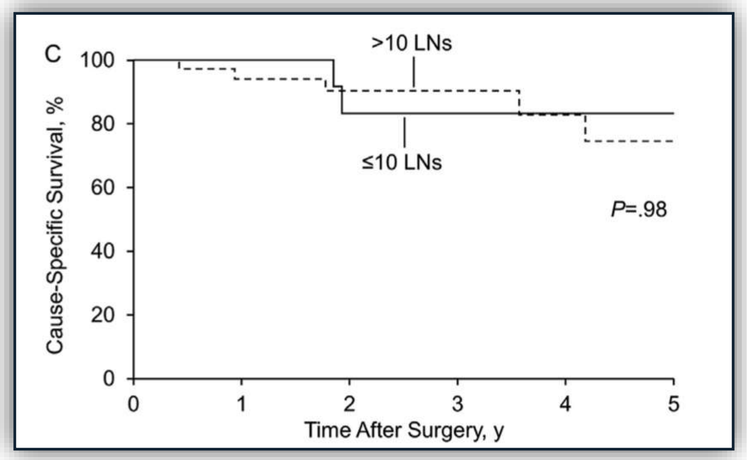


Multinu et al. Gynecol Oncol 2019

Role of lymphadenectomy in endometrial cancer with nonbulky lymph node metastasis: Comparison of comprehensive surgical staging and sentinel lymph node algorithm







Multinu et al. Gynecol Oncol 2019

Clinical trial

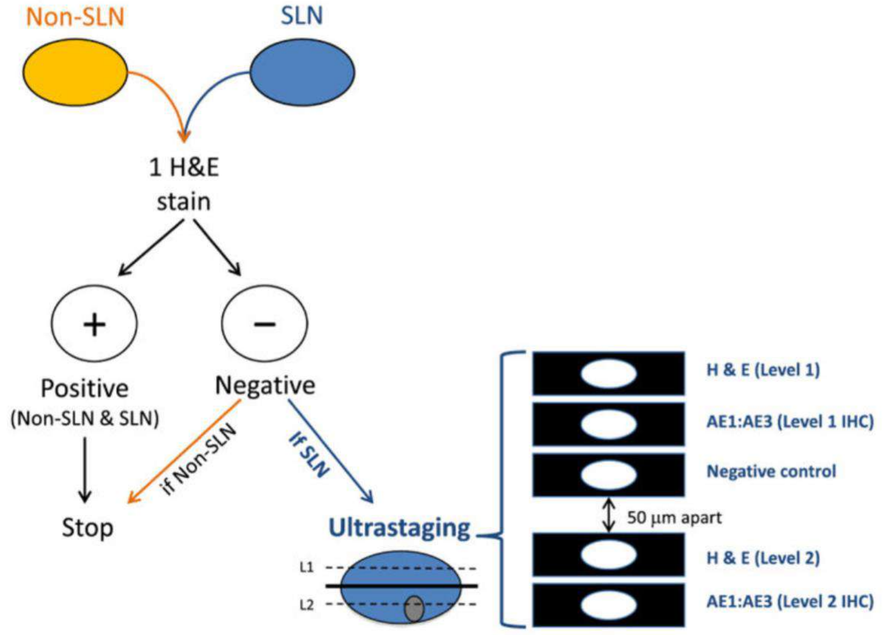
Sentinel lymph node mapping versus sentinel lymph node mapping with systematic lymphadenectomy in endometrial cancer: an open-label, non-inferiority, randomized trial (ALICE trial)

Primary Objectives The present study aims to confirm that SLN biopsy without systematic node dissection does not negatively impact oncological outcomes.

Study Hypothesis We hypothesized that there is no survival benefit in adding systematic lymphadenectomy to sentinel node mapping for endometrial cancer staging. Additionally, we aim to evaluate morbidity and impact in quality of life (QoL) after forgoing systematic lymphadenectomy.

Baiocchi et al. IJGC 2023 - Trial in progress

The Impact of Sentinel Node-Mapping in Staging High-Risk Endometrial Cancer



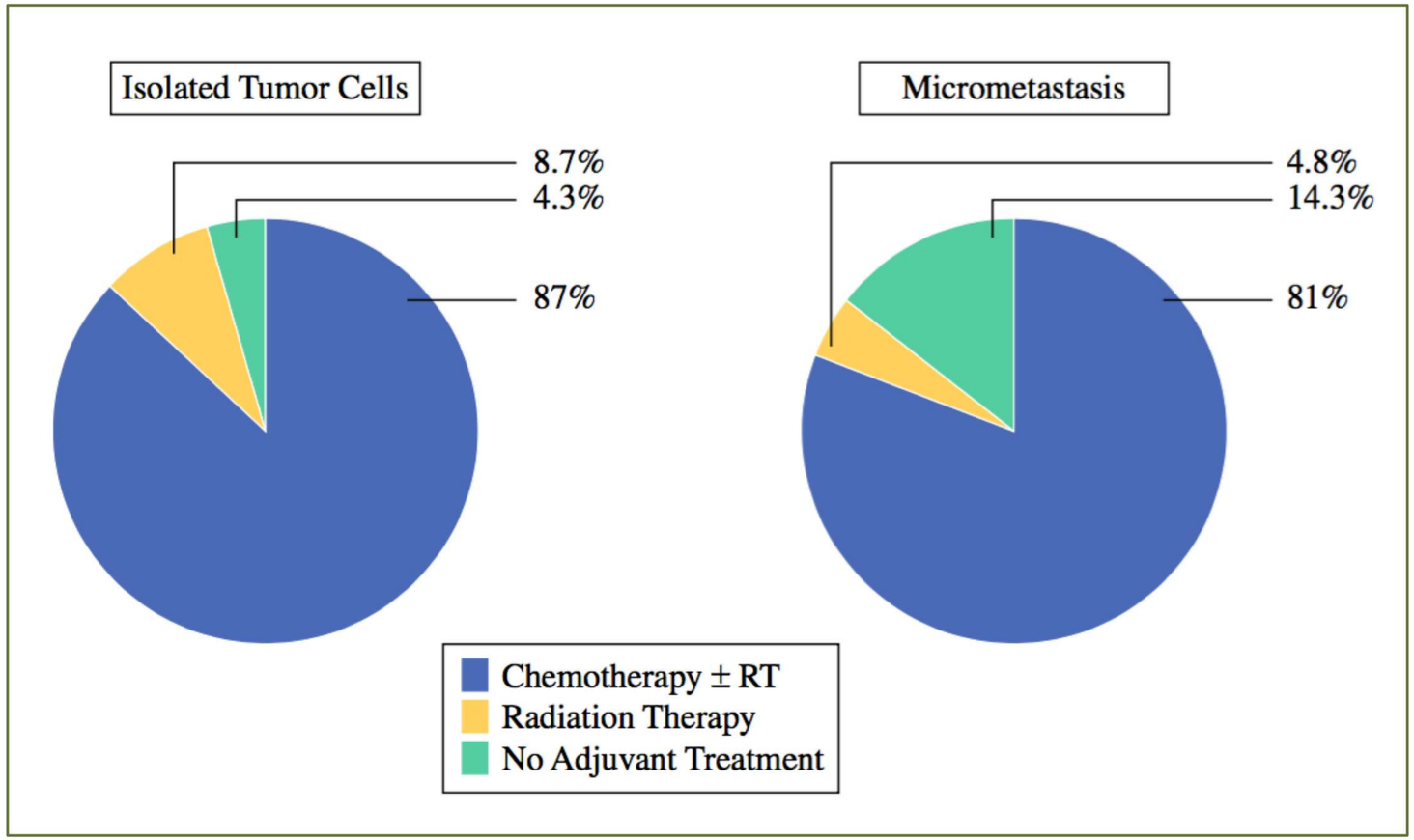
A prospective validation study of sentinel lymph node mapping for high-risk endometrial cancer☆

ITC : 11%
MICROMETAS : 32%

MACROMETAS (>2MM) : 57%

Soliman et al. Gyneco Onco 2017

Low-Volume Lymph Node Metastasis Discovered During Sentinel Lymph Node Mapping for Endometrial Carcinoma



St Clair et al. Annals of Surgical Oncol 2016

GS : FIABILITÉ /FAISABILITÉ = RECOMMANDÉ

Risk Group	Molecular Classification Unknown	Molecular Classification Known[A],*
Low	• Stage IA endometrioid + low-grade** + LVSI negative or focal	• Stage I-II ***POLE*mut** endometrial carcinoma, no residual disease • Stage IA **MMRd/NSMP** endometrioid carcinoma + low-grade** + LVSI negative or focal
Intermediate	• Stage IB endometrioid + low-grade** + LVSI negative or focal • Stage IA endometrioid + high-grade** + LVSI negative or focal • Stage IA non-endometrioid (serous, clear cell, undifferentiared carcinoma, carcinosarcoma, mixed) without myometrial invasion	• Stage IB **MMRd/NSMP** endometrioid carcinoma + low-grade** + LVSI negative or focal • Stage IA **MMRd/NSMP** endometrioid carcinoma + high-grade** + LVSI negative or focal • Stage IA **p53abn** and/or non-endometrioid (serous, clear cell, undifferentiated carcinoma, carcinosarcoma, mixed) without myometrial invasion
High-intermediate	• Stage I endometrioid + substantial LVSI, regardless of grade and depth of invasion • Stage IB endometrioid high-grade**, regardless of LVSI status • Stage II	• Stage I **MMRd/NSMP** endometrioid carcinoma + substantial LVSI, regardless of grade and depth of invasion • Stage IB **MMRd/NSMP** endometrioid carcinoma high-grade**, regardless of LVSI status • Stage II **MMRd/NSMP** endometrioid carcinoma
High	• Stage III-IVA with no residual disease • Stage I-IVA non-endometrioid (serous, clear cell, undifferentiated carcinoma, carcinosarcoma, mixed) with myometrial invasion, and with no residual disease	• Stage III-IVA **MMRd/NSMP** endometrioid carcinoma with no residual disease • Stage I-IVA **p53abn** endometrial carcinoma with myometrial invasion, with no residual disease • Stage I-IVA **NSMP/MMRd** serous, undifferentiated carcinoma, carcinosarcoma with myometrial invasion, with no residual disease
Advanced Metastatic	• Stage III-IVA with residual disease • Stage IVB	• Stage III-IVA with residual disease of any molecular type • Stage IVB of any molecular type

PROFIL BIOMOL

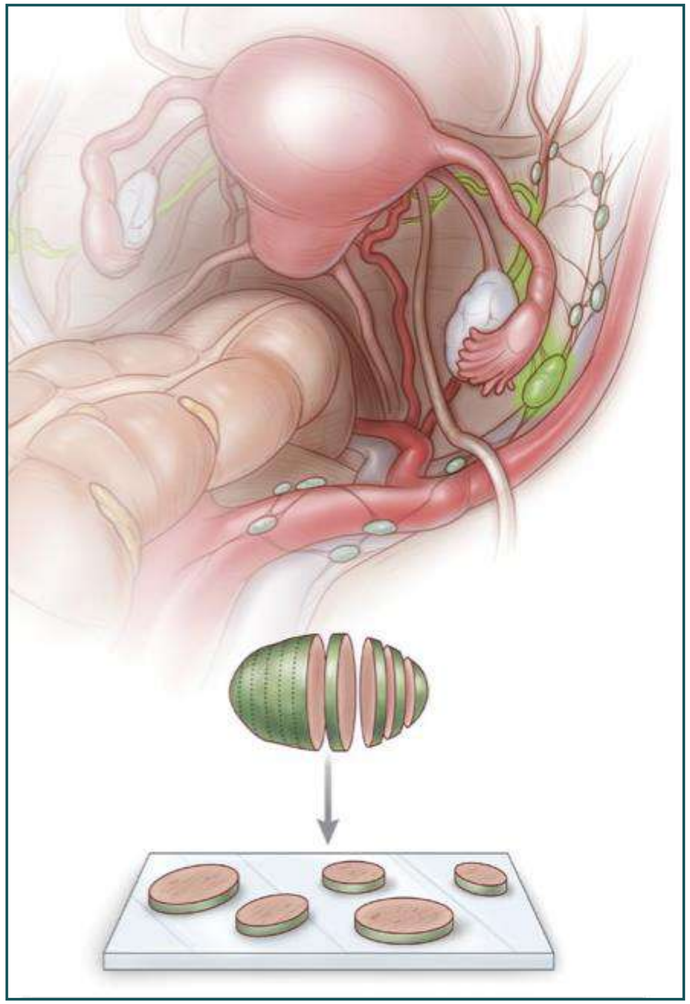
L'EMPORTE

SUR LE PRONOSTIC

IND TRAITEMENT ADJ

ESMO ESGO ESTRO Guidelines 2020

FIABILITÉ GS : CONCLUSIONS INTERMÉDIAIRES



ALGORITHME « PERSSON » OPTIMISE LE TAUX DE DÉTECTION BILATÉRALE (95% AVEC RÉINJECTION)

SENSIBILITÉ ET VPN > 95%

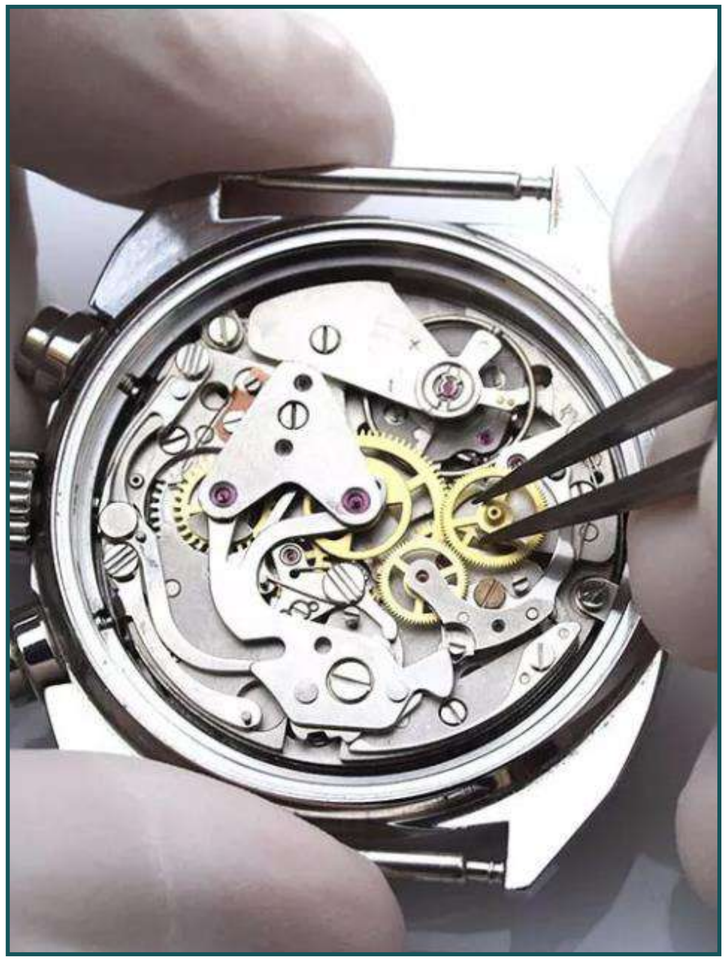
COURBE APPRENTISSAGE ET VOLUME D'ACTIVITÉ VIA CENTRALISATION RESTE GARANT DE QUALITÉ / FIABILITÉ

CHEZ PATIENTES EC HR, GS IDENTIFIE ADÉQUATEMENT LES STATUTS IIIC (! ITC)

PRONOSTIC DES CANCERS ENDOMÉTRIAUX NE SEMBLE PAS MODIFIÉ PAR LE PASSAGE DE LAD AU GS

SUR BASE DES RECOMMANDATIONS ESGO, PAS DE GS (LAD) POUR LES ST I/II POLE ET I MYOINV P53

FIABILITÉ GS : CONCLUSIONS INTERMÉDIAIRES



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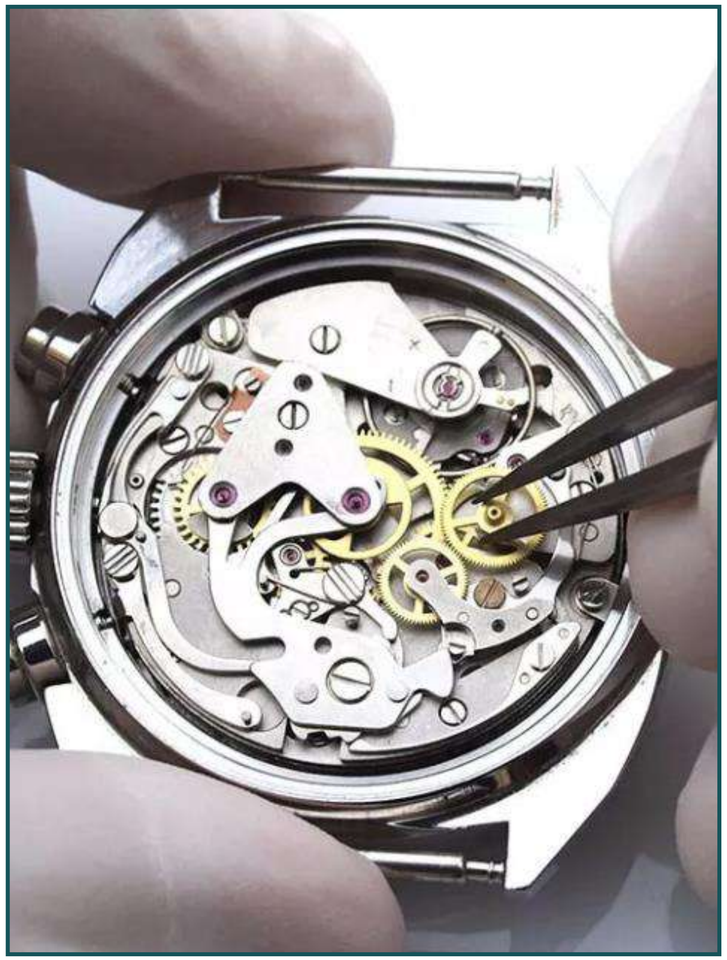

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SUR BASE DES RECOMMANDATIONS ESGO,
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1: 50 ANS D'ÉVOLUTION DS LA DÉMARCHE PRONOSTIQUE

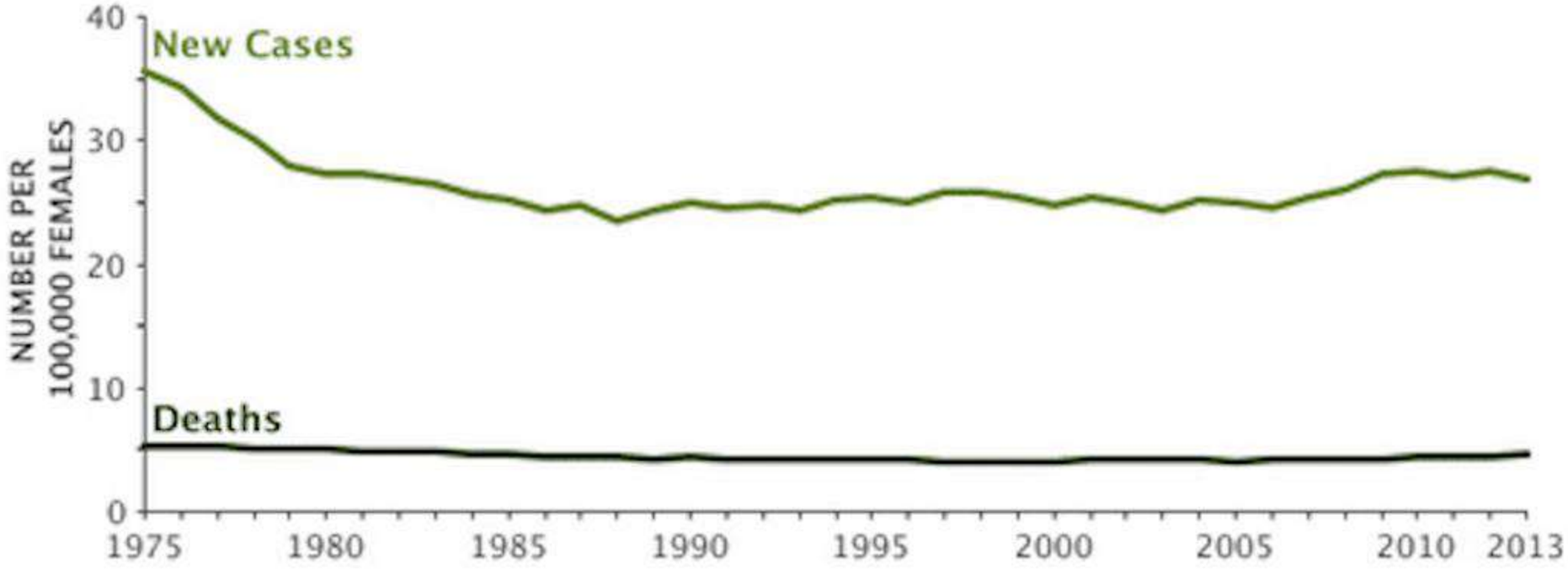
1975	HISTOLOGIE DE LA TUMEUR PRIMITIVE	HRT RADICALE	463 €
2000	HISTOLOGIE DE LA TUMEUR PRIMITIVE STATUS GANGLIONNAIRE	HRT RADICALE GGL PELVIENS ET PA MORBIDITÉ X 3 À X 8	1282 €
		HRT RADICALE GS LR (HR?)	1282 €
2025	HISTOLOGIE DE LA TUMEUR PRIMITIVE STATUT GANGLIONNAIRE (ULTRASTAGING) PROFIL GÉNÉTIQUE	HRT RADICALE GS L ET HR IHC / BIOMOL	2182 €

1: 50 ANS D'ÉVOLUTION DS LA DÉMARCHE PRONOSTIQUE

1975

2000

2025



SEER Data

1975

2000

2025

ASSIMILATION

INDICATEUR PRONOSTIQUE / INDICATION THÉRAPIE ADJUVANTE

(LVSI / N+ / TP53 / MMRD / POLE)

XRT

CCRT + CT

CT

DÉSESCALADE

2: QUE DISENT LES SEULS RCT DISPONIBLES ?

Type of adjuvant therapy	Lymphadenectomy arm (n = 264)	No-lymphadenectomy arm (n = 250)
No adjuvant therapy, No. (%)	182 (68.9)	162 (64.8)
Radiation therapy, No. (%)	44 (16.7)	63 (25.2)
Chemotherapy, No. (%)	23 (8.7)	14 (5.6)
Chemotherapy and radiation therapy, No. (%)	15 (5.7)	11 (4.4)

* $P = .07$, by the χ^2 test for the whole tabular values. No single comparison was done.

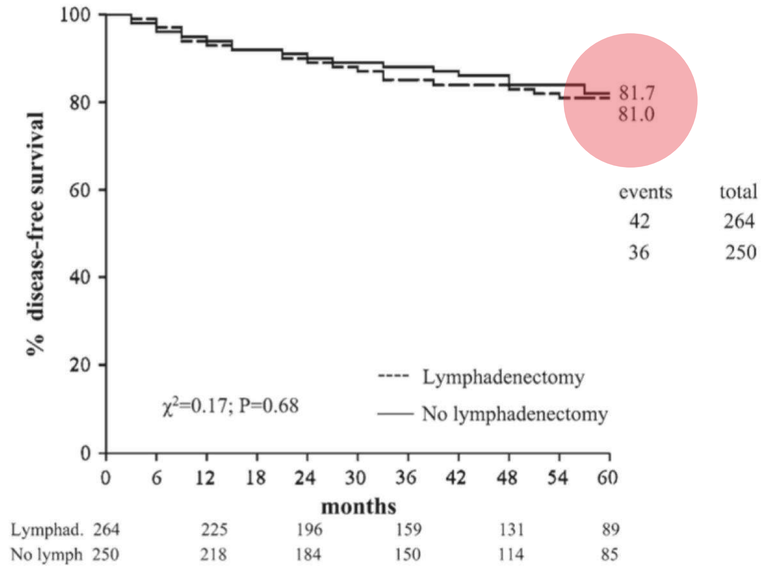


Table 5. Site of disease recurrence by treatment arm*

Recurrence site	Lymphadenectomy arm (n = 264)	No-lymphadenectomy arm (n = 250)
No recurrence, No. (%)	231 (87.5)	217 (86.8)
Recurrence, No. (%)	34 (12.9)	33 (13.2)
Lung	8 (3)	8 (3.2)
Intraperitoneum	8 (3)	7 (2.8)
Vagina	7 (2.6)	6 (2.4)
Lymph node	4 (1.5)	4 (1.6)
Bone	4 (1.5)	3 (1.2)
Liver	2 (0.7)	3 (1.2)
Missing data	3 (1.1)	3 (1.2)

Benedetti Panici et al. JNCI. 2008

3: ENTRE 2016 ET 2020, LE STATUT GGL EST RETIRÉ DU TABLEAU DES RECO ESGO ?

Risk Group	Molecular Classification Unknown	Molecular Classification Known[A],*
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Advanced Metastatic	• Stage III-IVA with residual disease • Stage IVB	• Stage III-IVA with residual disease of any molecular type • Stage IVB of any molecular type

ESMO ESGO ESTRO Guidelines 2020

4: CCRT + CT POUR EC IIIC EST ISSUE D'UN SOUS-GROUPE FIGO III (PORTEC III)

(ANALYSE A POSTERIORI)

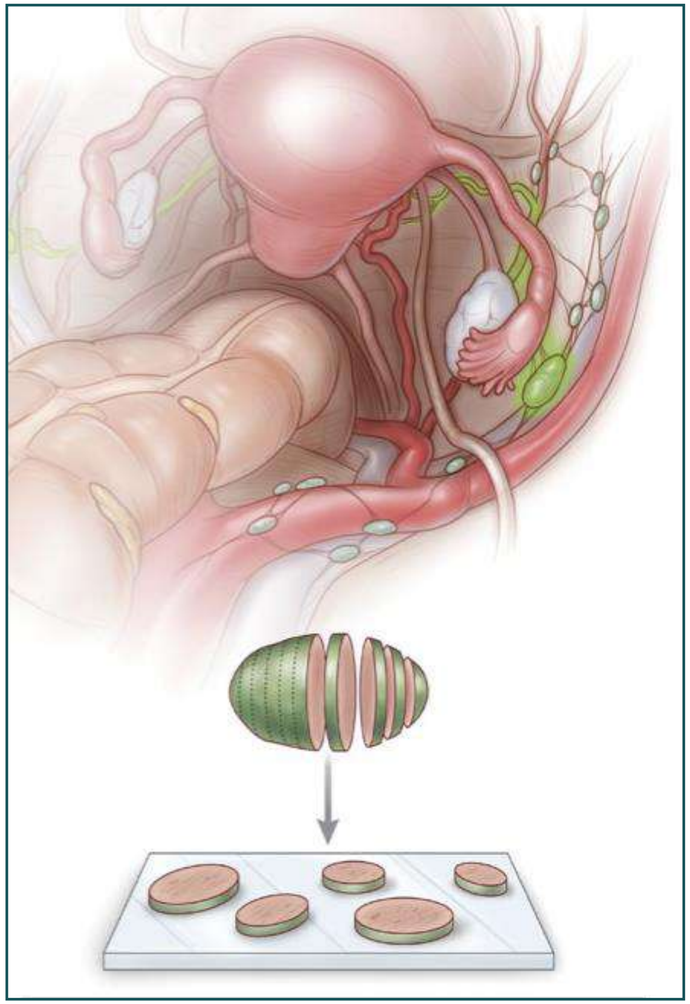
Adjuvant chemoradiotherapy versus radiotherapy alone for women with high-risk endometrial cancer (PORTEC-3): final results of an international, open-label, multicentre, randomised, phase 3 trial

FIGO stage							
Stage I and II	32/187	82% (76–88)	27/178	84% (79–90)	0·79 (0·47–1·33)	0·38	0·61
Stage III	43/143	70% (62–78)	34/152	79% (72–86)	0·66 (0·42–1·04)	0·074	

FIGO stage							
Stage I and II	43/187	77% (70–82)	35/178	81% (74–86)	0·77 (0·49–1·21)	0·26	0·47
Stage III	60/143	58% (49–66)	48/152	69% (61–76)	0·62 (0·42–0·91)	0·014	

FIGO 1988 STAGE III INCLUDES POSITIVE CYTOLOGY, UTERINE SEROSAL INVOLVEMENT, ADNEXAL INVOLVEMENT, VAGINAL INVOLVEMENT AND POSITIVE PELVIC AND/OR PA NODES (LYMPH NODE STAGING BEING LEFT TO THE DISCRETION OF THE CENTER

FIABILITÉ GS : CONCLUSIONS



UN STAUT GANGLIONNAIRE POSITIF (MICRO - MACRO)

EST UN FACTEUR PRONOSTIC PÉJORATIF (OS/PFS) POUR L'EC

L'ALGORITHME GS DE « PERSSON » PERMET D'OBTENIR

CETTE VARIABLE PRONOSTIQUE DE MANIÈRE FIABLE

LA FAIBLE MORBIDITÉ DE L'APPROCHE GS

N'EN FAIT PAS UNE INDICATION SYSTÉMATIQUE

UN FACTEUR PRONOSTIC NE PEUT ÊTRE TRADUIT EN

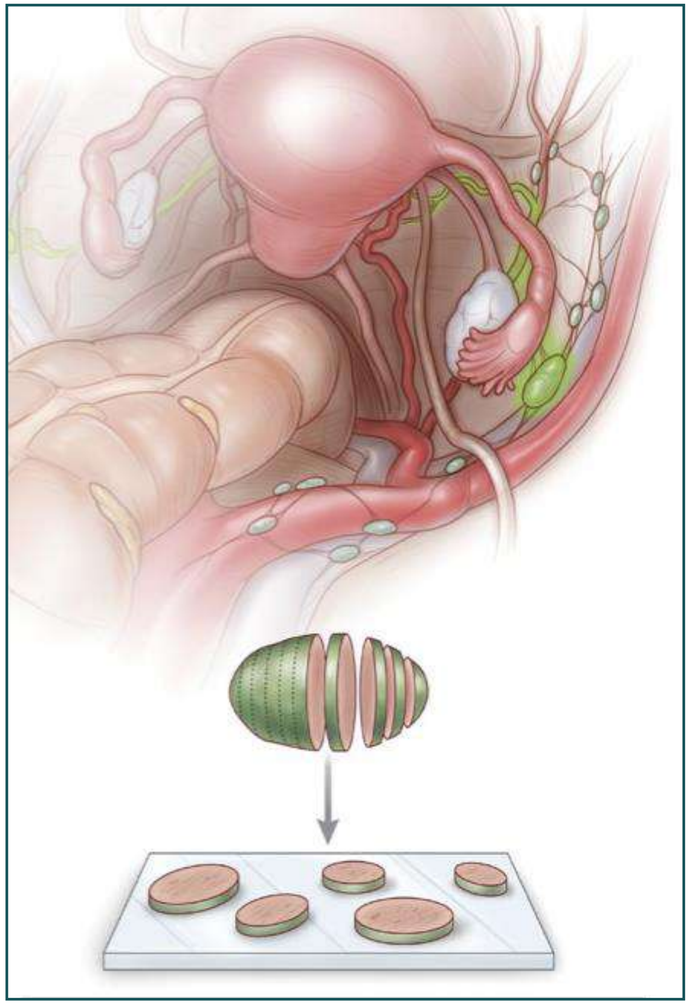
INDICATION THÉRAPEUTIQUE QU'À LA LUMIÈRE DE RCT'S

AUCUN RCT NE COMPARE UN TRAITEMENT D'ÉTUDE

À L'OBS; OU TRAITEMENT DE REF POUR EC PT1N1

LES TRAITEMENTS ADJ RÉSERVÉS AU EC PT1N1

DÉRIVENT D'ANALYSE DE SOUS-GROUPES A POSTERIORI



19èmes Journées Daniel Dargent

de Chirurgie Gynécologique, Cancérologique et Mammaire

MERCI POUR VOTRE ATTENTION

LE RÊVE EST SANS CONTESTE PLUS BEAU QUE LE DOUTE

MAIS LE DOUTE EST PLUS SOLIDE

EMIL MICHEL CIORAN

INSTITUT DE CANCÉROLOGIE ARSÈNE BURNY