Thames Valley and Wessex Radiotherapy Network

Radiotherapy Protocols

Endometrial Cancer

This document is the standardised Thames Valley and Wessex Radiotherapy Network Endometrial cancer treatment protocol developed collaboratively by the Endometrial cancer Protocol Working Group:

Trust	Clinician	Physicist	Radiographer
Oxford University Hospitals NHS Foundation Trust	Dr Amanda Horne Dr Sally Trent	Helen Winter David Polley	Loryn Caulfield
Portsmouth Hospitals University NHS Trust	Dr Maja Uherek Dr Radwa Ahmed	Wojciech Polak	Alison Ormerod
Royal Berkshire Hospitals NHS Foundation Trust	Dr Helen O'Donnell	Joanne Jones	Lisa Revans
University Hospitals Dorset NHS Foundation Trust	Dr Matthew Roberts Dr Joanne Parkinson Dr Rachel Wilkinson	Emma Wesley Sreelish Kariyarambeth	Gillian Thomas
University Hospitals Southampton NHS Foundation Trust	Dr Vicky McFarlane Dr Cristiana Alzamora Dr Hannah Beckett Dr. Luke Bennett	Aaron Huckle	Julie Calvert

Document History

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10.12.2024	1.0	31.01.2025	Network Gynae Group	New protocol	Network Oversight Group (NOG)

THAMES VALLEY AND WESSEX NETWORK EXTERNAL BEAM RADIOTHERAPY PROTOCOL FOR TREATMENT OF ENDOMETRIAL CANCER

Introduction
This protocol includes the adjuvant post-operative radiotherapy for cancer of the endometrium, as well as the much rarer situation where primary radiotherapy or chemo-radiotherapy is indicated. It describes external beam radiotherapy (EBRT). It describes the treatment with IMRT/VMAT.

FIGO Staging (2009)

- IA Tumour confined to the uterus, or < ½ myometrial invasion
- IB Tumour confined to the uterus, > ½ myometrial invasion
- II Cervical stromal invasion, but not beyond uterus
- IIIA Tumour invades serosa or adnexa
- IIIB Vaginal and/or parametrial involvement
- IIIC1 Pelvic lymph node involvement
- IIIC2 Para-aortic lymph node involvement, with or without pelvic node involvement
- IVA Tumour invasion of bladder and/or bowel mucosa
- IVB Distant metastases including abdominal metastases and/or inguinal lymph nodes

FIGO Staging 2023 – please see table below

Investigations:

- Histological confirmation endometrial cancer and IHC requested to include ER, P53, MMR and POLE
- Staging CXR or CT chest and MRI pelvis usually performed pre-op
- Staging CT scan abdomen and pelvis +/- chest if clinically indicated, grade 3, stage III or primary radical radiotherapy planned
- PET CT may be required for staging of complex cases, and is mandatory prior to salvage radiotherapy for local recurrence

Treatment

- **Surgery**

Stage I and II, and higher stages where clinically operable
- Hysterectomy and bilateral salpingo-oophorectomy (TAH or LVH & BSO)
- Occasionally hysterectomy alone may be necessary – document reasons for this
- Pelvic lymphadenectomy may be performed if high grade disease or gross palpable disease at surgery. Alternatively, some centres may perform sentinel lymph node biopsy instead of lymphadenectomy. PA lymphadenectomy is not standard practice but maybe considered if gross palpable disease is present.

Inoperable cases
- Refer for radiotherapy consultation (chemotherapy or hormone therapy may be helpful for some of these patients)
- Sometimes subsequent TAH *or LVH &* BSO to remove primary and source of bleeding – in some rare situations this may be a pelvic exenteration

- **Adjuvant Radiotherapy**

Adjuvant treatment is based on the presence of risk factors including stage, grade, lymphovascular *space* invasion and immunohistochemistry. Consensus guidelines for adjuvant treatment have been issued by ESGO-ESTRO-ESP (https://ijgc.bmj.com/content/early/2020/12/18/ijgc-2020-002230).
The table below is a guide to adjuvant treatment recommendations. It is important to take into account the patient's comorbidities and toxicities of combined modality treatment. Adjuvant treatment should be offered

to start within 12 weeks of surgery provided postoperative recovery. In patients with high risk or stage III disease who receive chemoradiation, two cycles of cisplatin will be administered in week 1 and 4 of RT, followed by four cycles of carboplatin AUC5 and paclitaxel at 3-week intervals, starting 3-4 weeks following completion of EBRT. Treatment sequence can be reversed in certain clinical scenarios following MDT discussion. PORTEC3 demonstrated no benefit of chemotherapy in MMRd or POLEmut Stage I or II cancers. Sequential chemotherapy followed by radiotherapy may be an alternative. Chemotherapy alone or with vault brachytherapy can be considered following systematic lymphadenectomy in certain clinical scenarios.

2020 ESGO/ESTRO/ESP Guidelines

Adjuvant treatment for endometrial cancer summary

	Low Grade endometrioid (MMRd/NSMP)	**High Grade endometrioid (MMRd/NSMP)**	**Non Endometrioid and or p53abn**
IA LVSI –ve/focal	Low risk	Intermediate risk	No myometrial invasion-intermediate risk myometrial invasion - High risk
IB LVSI –ve/focal	Intermediate risk	High Intermediate risk	High risk
IA or IB Substantial LVSI	High Intermediate risk	High Intermediate risk	High risk
II	High Intermediate risk	High Intermediate risk	High risk
III-IVA	High risk	High risk	High risk

	Molecular analysis	**Adjuvant treatment**
Low risk	I-II **POLEmut**	No adjuvant therapy
Intermediate risk	No **p53abn** (p53abn restricted to a polyp	VBT (consider omitting in <60 years)
High intermediate risk pN0		VBT (consider EBRT substantial LVSI and/or Stage II) Adjuvant chemo can be considered for high grade and/or substantial LVSI
High intermediate risk pNx		EBRT Adjuvant chemo can be considered for high grade and/or substantial LVSI VBT (high grade LVSI –ve and stage II G1)
High risk	**POLEmut** no outcome data on omission of adjuvant therapy	Chemoradiotherapy and adjuvant chemo

FIGO 2023 Adjuvant Therapy Guidelines

	Non Aggressive Histology	**Aggressive Histology**
	Low Grade (G1 G2 EEC) POLE mutant G3 ECC POLE mutant p53wt	High-grade EECs (G 3), Serous carcinoma, Clear Cell Carcinoma, Mucinous Carcinoma, Undifferentiated Carcinoma, Carcinosarcoma, and mesonephric-like and gastro-intestinal type mucinous carcinomas p53abn
I No or Focal LVSI	**IAI** disease confined to polyp, or no myometrial invasion	**IC** disease confined to polyp, or no myometrial invasion
	IA2 <50% myometrial invasion	
	IA3 limited to uterus (<50%) and ovary	
	IAm$_{POLEmutant}$ confined to uterus +/- cervix, LVSI +/-	
	IB >50% myometrial invasion	

II	**IIA** cervical stroma invasion	**IIC** myometrial invasion
	IIB presence of LVSI	**IICm**$_{p53abn}$ confined to uterus +/- cervix, LVSI +/-
IIIA	**IIIA** Invasion of uterine serosa, adnexa, or both by direct extension or metastasis	
	IIIA1 Spread to ovary or fallopian tube (except when meeting stage IA3 criteria)	
	IIIA2 Involvement of uterine subserosa or spread through the uterine serosa	
IIIB	**IIIB1** Metastasis or direct spread to the vagina and/or the parametria	
	IIIB2 Metastasis to the pelvic peritoneum	
IIIC	**IIIC1** Metastasis to the pelvic lymph nodes **IIIC1i** Micrometastasis **IIIC1ii** Macrometastasis	
	IIIC2 Metastasis to para-aortic lymph nodes up to the renal vessels, with or without metastasis to the pelvic lymph nodes **IIIC2i** Micrometastasis **IIIC2ii** Macrometastasis	
IV	**IVA** Invasion of the bladder mucosa and/or the intestinal/bowel mucosa	
	IVB Abdominal peritoneal metastasis beyond the pelvis	
	IVC Distant metastasis, including metastasis to any extra- or intra-abdominal lymph nodes above the renal vessels, lungs, liver, brain, or bone	

These are guidelines and adjuvant therapy must be discussed on an individual basis

Low risk	**POLEmut or p53wt**	**No adjuvant therapy**
Intermediate risk	**p53wt or p53abn restricted to a polyp**	**VBT**
High intermediate risk	**p53wt**	**EBRT**
High risk	**p53abn or stage >III**	**Adj chemo and EBRT**

LVSI substantial 5 vessels or more
NSMP no specific molecular profile
***POLE*mut** carcinomas associated with excellent prognosis, recurrence rare.
p53abn carcinomas associated with unfavourable prognosis, consider chemoRT and adj chemo
MMRd no benefit of chemo, consider immunotherapy in metastatic/advanced disease.
In multiple classifiers with **POLEmut** or **MMRd** and secondary **p53abn**, tumours should be considered as **POLEmut** or **MMRd.**

These are guidelines and adjuvant therapy must be discussed on an individual basis
LVSI (Lympho-Vascular Space Invasion) substantial, 5 vessels or more
NSMP (No Specific Molecular Profile)
POLEmut (polymerase-mutated) carcinomas associated with excellent prognosis, recurrence rare.
p53abn (p53 abnormal) carcinomas associated with unfavourable prognosis, consider chemoRT and adjuvant chemo

Update of the PORTEC 3 trial demonstrates a survival advantage in stage III and serous cancer for CRT and adjuvant chemo. This advantage will be more pronounced in the high grade, higher stage patients.

BPLND is a staging procedure rather than a therapeutic procedure. The risk of LN metastasis can help to inform the discussion as to the benefit of EBRT/chemotherapy.

A stage 1A Endometrioid Adenocarcinoma with LVSI has a risk of LN involvement of 11-13%
A stage 1B Endometrioid Adenocarcinoma with LVSI has a risk of LN involvement of 25%

Age greater than 60 is a poor prognostic factor and should be used to inform the discussion regarding benefit of adjuvant therapy.
https://www.thelancet.com/action/showPdf?pii=S1470-2045%2819%2930395-X

Local Recurrence of Endometrial Cancer

Radical treatment with radiotherapy and weekly concomitant cisplatin +/- brachytherapy is indicated to treat potentially salvageable local recurrence, administered according to departmental protocol.

Retreatment

In select circumstances re-irradiation can be considered. It depends on the expected prognosis and there being no suitable alternative treatment. The risks and benefits need to discussed and documented within a peer group and discussed fully with the patient.
Time elapsed from previous treatment, the use of chemotherapy, previous surgery, associated comorbidities, BED to points of interest (including from prior brachytherapy) and evidence of radiation sequelae are all important in any decision. Consider chemotherapy initially to reduce volume if appropriate.
If not suitable for re irradiation with SABR or brachytherapy then doses and dose constraints as per the rectal re irradiation protocol

Compensation for an unscheduled break

In the event of an unscheduled break in treatment, compensation for the break should occur as per the **RCR guidelines**

3. Pre-Radiotherapy Investigations

- History and physical examination.
- CT CAP
- PET CT scanning should be performed before treatment for recurrent disease and requested on a flat couch, if available
- FBC/U&Es, LFTs, bone profile (+/- magnesium, if chemotherapy with cisplatin is being administered

4. Therapeutic Schema

Endometrial Cancer (adjuvant)

- **PTV_48.6** 48.6Gy in 27# x5/week
- **PTV_45** 45Gy in 25 fractions x5/week

In the presence of unresected lymph nodes:

- **PTV_58** SIB of 58Gyin 27 # x5/week to involved Para aortic nodes
- **PTV_60** SIB of 60Gy in 27 # x5/week to involved pelvic nodes
- **PTV_54** SIB of 54Gy in 27# x5/week to sites of debulked nodes where there is evidence of extracapsular spread
- Bulky nodal disease (>2cm): consider replanning scan Friday of week 3 to be ready for outlining Tuesday week 4 and to start #21

Alternatively:

- **PTV_45** 45Gy in 25 # x5/week
- **PTV_55** SIB of 55Gy in 25# x5/week to involved pelvic nodes
- **PTV_57.5** SIB of 57.5Gy in 25# x5/week to involved Paraaortic nodes

- **PTV_54** SIB of 54Gy in 25# x5/week to sites of debulked nodes where there is evidence of extracapsular spread

Recurrent Endometrial (if considering interstitial brachytherapy)

- **PTV_45** 45Gy in 25 # x5/week
- **PTV_55** SIB of 55Gy in 25# x5/week to involved pelvic nodes
- **PTV_57.5** SIB of 57.5Gy in 25# x5/week to involved Para aortic nodes
- **PTV_54** SIB of 54Gy in 25# x5/week to sites of debulked nodes where there is evidence of extracapsular spread
- Bulky nodal disease (>2cm): consider replanning scan Friday of week 3 to be ready for outlining Tuesday week 4 and to start #21

Recurrent Endometrial (if interstitial brachytherapy not possible)

- **PTV_45** 45Gy in 25 # x5/week
- **PTV_60** SIB of 60Gy in 25# x5/week to involved pelvic nodes or lateral recurrence. This may need to be modified depending on dose to OAR's
- **PTV_57.5** SIB of 57.5Gy in 25# x5/week to involved Para aortic nodes
- **PTV_54** SIB of 54Gy in 25# x5/week to sites of debulked nodes where there is evidence of extracapsular spread
- Bulky nodal disease (>2cm): consider replanning scan Friday of week 3 to be ready for outlining Tuesday week 4 and to start #21

- In some cases, it may not be possible to decide on an integrated boost at the start of radiotherapy treatment and hence a sequential boost may be required. The sequential boost dose will vary depending on site and residual disease but doses of up to 8-9 fractions of 1.8 Gy /fraction have been used previously
- In the event of cervical stroma involvement patients can be offered HDR brachytherapy to vaginal vault 10Gy in 2 fractions at 5mm following 45Gy in 25 fractions or 8Gy in 2 fractions following 48.6Gy in 27 fractions.

Further details on brachytherapy can be found in the Thames Valley and Wessex Network Brachytherapy Protocol.

5. Pre Treatment

1. Pre-planning – Clinician

- Patients will receive an explanation of the radiotherapy process in the oncology clinic.
- Patients will be *counselled* regarding bladder and bowel preparation for treatment planning and over the course of radiotherapy. Patients need to be opening their bowels on a daily basis or laxatives should be prescribed in clinic. The importance of having an empty rectum for planning and treatment will be stressed. Patients also need to be well hydrated prior to and during planning and treatment. Consideration should be given to stopping diuretics if possible.
- Patients will be consented for treatment and given departmental patient information sheets, and a prescription for laxatives if required.
- If treating the PA *nodes*, prescribe prophylactic anti-emetics; Ondansetron 8mg OD to be taken approximately 30-60 minutes prior to RT. Prescribe a proton pump inhibitor or H2 receptor antagonist as per formulary (Consider continuing for 3/12 post RT).

2. Pre-planning – Radiographer

- As per local protocol

- To ensure that patient understands need for comfortably full bladder & empty rectum during treatment. Bowel and bladder prep as per local protocol.

3. Patient Simulation and Immobilisation

- Radical treatment for endometrial cancer patients not suitable for surgery - as per the cervical cancer Wessex Network protocol

- All patients will have a CT Simulation in the treatment position, supine, and will be immobilised to support feet and popliteal fossae. Arms to be elevated or crossed high up on the chest when PA nodes are to be included in the treatment volume.
- Adjuvant patients will be scanned from the top of L3 to 4 cm below the ischial tuberosities. Initial scanogram and low mA slices are performed to check the fullness of the bladder and rectal filling prior to administering contrast. If rectal diameter is larger than 4cm due to gas or faeces, patient should be scanned after emptying the rectum. Patients should be planned and treated with bladder moderately full as per gynae bladder filling instructions (bladder volume should be between 200-300ml). Volume should be checked using bladder scanner if available.
- Unless contraindicated, IV contrast is used in order to clearly visualise the pelvic vessels.
- If para-aortic nodes patients will be scanned from T10 to 4cm below ischial tuberosities.
- If there is residual or recurrent vaginal disease a marker should be positioned to indicate the position of introitus.
- The decision as to whether patients will need to use micro enemas for each treatment fraction will be made depending on the local protocol
- Tattooing to be performed after the full bladder scan as this is the primary dataset:
    - An anterior tattoo placed approx. on midline, superior to the symphysis pubis.
    - Lateral tattoos placed in line superior-inferiorly with the anterior tattoo, at approximately midplane.

6. Treatment Planning

Target Definition:

Conventional contour nomenclature and description	**Suggested Proknow nomenclature**
GTVv (*residual disease (rarely contoured)*	GTVp
GTV N	GTVn
CTVv (*parametrium and upper vagina)*	CTVp_4500
CTV E (*elective lymph nodes)*	CTVe_4500
CTV N (*positive lymph nodes)*	CTVn_xxxx (CTVn1_xxxx, CTVn2_xxxx)
PTVv (CTVv + 10mm)	PTVp_4500
PTV E (CTV E + 7mm)	PTVe_4500
PTV_45/48.6 (PTVv + PTV E)	PTV_4500
PTV N	PTVn_xxxx (PTVn1_xxxx, PTVn2_xxxx)

Elective nodal volumes to be included in the CTV

Inguinal Nodes	If significant vaginal involvement
Obturator Nodes	Yes
Internal Iliac Nodes	Yes
External Iliac Nodes	Yes
Common Iliac Nodes	If positive pelvic nodes or cervical involvement
Presacral Nodes	If cervical involvement (FIGO II), Consider if LN positive or high risk factors *including mid or upper vaginal involvement*
Para Aortic Nodes	If involved on imaging or at surgical resection. Include if ≥1 pathological node at common iliac or ≥3 pathological pelvic nodes

Target volume outlining:

- GTVv – contour using information from operation notes, clinical examination and available imaging
- CTVv – parametrium and upper vagina – outline visible vaginal cuff and 3cm of vagina. The volume should extend inferiorly to 1cm above the bottom of the obturator foramen or include 3 cm of vagina, whichever is more inferior. Grow this volume by 5mm sup/ant/post/lat but NOT inferiorly, and manually adjust to include parametrium (lateral border – obturator muscle/ischial ramus or CTV E)

- CTV E
  - If negative pelvic lymph nodes post lymphadenectomy or in patients who did not undergo lymphadenectomy, but have no pathologically enlarged nodes on imaging – outline blood vessels from the top of the femoral heads up to bifurcation of the common iliac blood vessels into external/internal iliac.
  - If node positive (resected) – include common iliac lymph nodes (ouline vessels up to the aortic bifurcation)
  - If there is evidence of cervical stromal involvement – include presacral nodes (anterior to S1 and S2)
  - If inguinal nodes are involved or lower third of vagina – include distal external iliac (where external iliac arteries become the femoral arteries) and inguinal nodes.

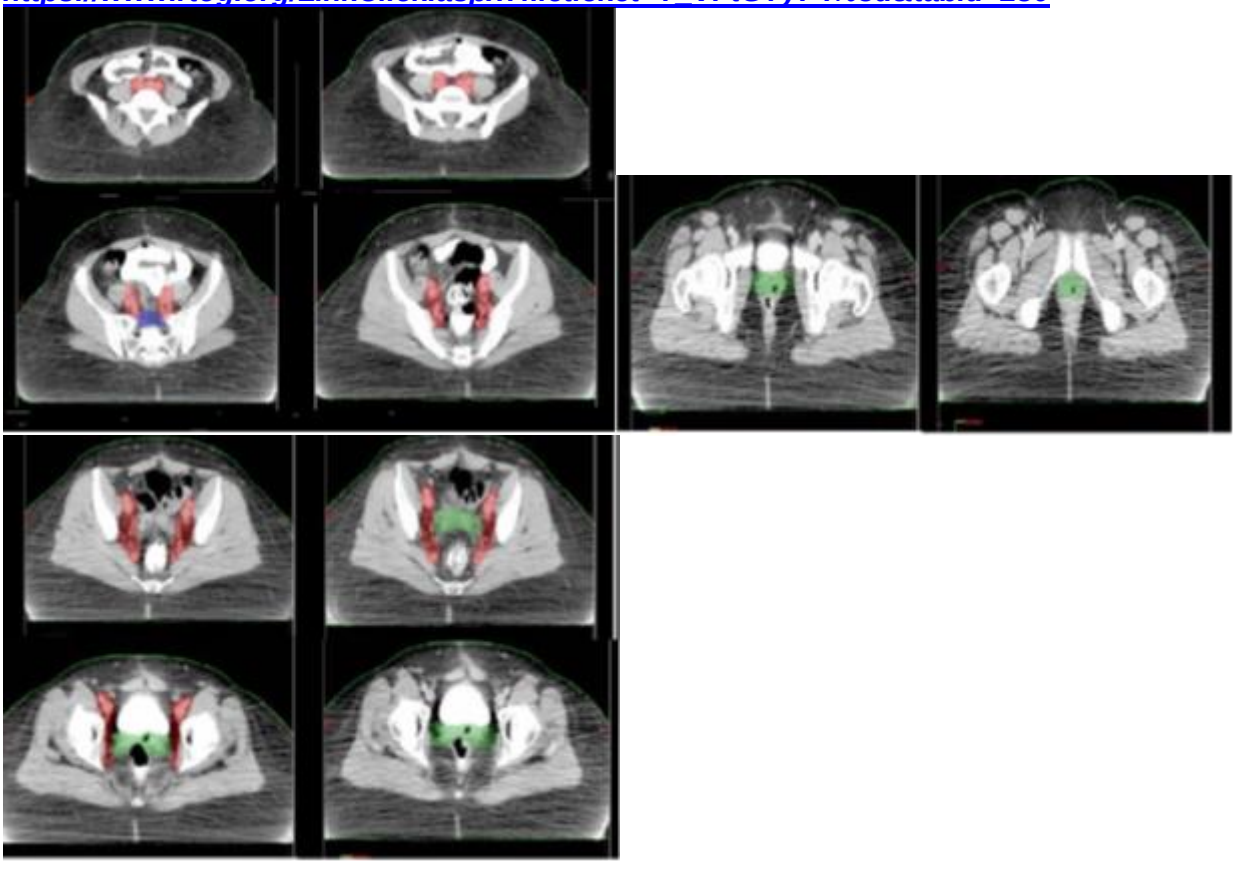
Outline appropriate vessels and grow them by 7mm and connect them as described below:

- Superior CTV E (common iliac +/- presacral) – copy volume vessels + 7 and connect it using 10mm-diameter roller-ball in front of the vertebral bodies, sacrum and muscle. Edit off the bone and muscle, but include lymphocoele and surgical clips. If presacral nodes are not included this volume splits ~2cm below the bifurcation of aorta. If presacral nodes are included this volume splits at the inferior aspect of S2.

- Inferior CTV E (external and internal iliac vessels) – nodal contour extends as above. Join the margins of the internal and external iliac vessels with an 18mm rollerball adjacent to the pelvic side wall. At the level of vaginal cuff, the internal iliac vessels become less distinct and posterior border becomes piriformis muscle (even if more than 7mm around the vessel). The nodal volume discontinues at the top of femoral head, where the vessels are anterior and lateral to the pelvic brim. If inguinal nodes are positive or there is involvement of the lower third of vaginal inguinal nodes are outlined to the level of lesser trochanter.

- If there is para-aortic nodal involvement the CTV should extend superiorly to the level of renal hila (border can be individualised depending on the location of the nodes).

Further guidance:
https://www.rtog.org/LinkClick.aspx?fileticket=Y_VFtGTy7-I%3d&tabid=230



PTV margins in different centres may vary, and depend on local audit.

- PTVv – grow CTVv by 10mm in all directions
- PTV E – grow CTV E by 5mm in all directions
- PTV_45 or PTV 48.6 – combine PTVv and PTV E

Organs at Risk

Performed by pre-treatment radiographer or physics planner or consultant*****

Critical organ	**Comment**
Bones – surrogate for bone marrow	Use segmentation wizard & post processing
Left/Right femoral head and neck (LF/RF)	Change window level to bone and contour on alternate slices of the femoral head and neck to the inferior margin the lesser trochanter, Interpolate between contours. If metallic hip prostheses are present, these should be outlined on the appropriate window level.
Bladder	Outline outer wall of full bladder on full bladder scan
Rectum	From anus to rectosigmoid flexure
Sigmoid	Outer wall from rectosigmoid to 2cm above PTV_Primary
Peritoneal Cavity /Bowel Bag	All bowel loops outlined to 2cm above PTV & subtract PTV, bladder, muscles and vessels but not bowel

If treating *PA nodes* outline:	**Comment**
Duodenum	Whole organ
Kidneys	Exclude collecting system
Liver	
Spinal Canal PRV (canal + 0.3cm)	

*****MUST be reviewed and approved by consultant or *entitled* FRCR part 2 holder*****

7. Treatment Modality
IMRT or *VMAT* may be used for planning. 6 MV/ 10 MV photons: linear accelerator.

8. Prescription Point
100% to the median dose in PTV (ICRU 83)
For SIB plans, median dose to boost PTVs (PTV_60, PTV_57.5, PTV_55) can be up to 1.0-1.5Gy above dose prescription (rather than the standard 0.5Gy) in order to achieve CTV_N mandatory objectives (planning purposes).

9. Dose Constraints: EMBRACE II protocol

	No lymph node involvement		Involved lymph nodes	
	Hard dose constraints	Soft dose constraints	Hard dose constraints	Soft dose constraints
PTV45	V42.75Gy > 95% Dmax < 107%	V42.75Gy = 95%	V42.75Gy > 95%	V42.75Gy = 95% Dmax < 107% for helper structure: PTV45 - (PTV-N(#) + 1cm)
ITV45	Dmin > 95%		Dmin > 95%	
CTV-HR + 10mm		Dmax < 103%		Dmax < 103% for helper structure: CTV-HR + 10mm - (PTV-N(#) + 1cm)
PTV-N(#)			D98% > 90% of prescribed LN dose Dmax < 107% of prescribed LN dose	D98% = 90% of prescribed LN dose
CTV-N(#)			D98% > 100% of prescribed LN dose	D50% > 102% of prescribed LN dose
Bowel	Dmax < 105%	V40Gy < 250cm^3* V30Gy < 500cm^3*	Dmax < 105% in regions outside 10-15mm from PTV-N	When no para-aortic irradiation: V40Gy < 250cm^3* V30Gy < 500cm^3* For para-aortic irradiation: V40Gy < 300cm^3* V30Gy < 650cm^3*
Sigmoid	Dmax < 105%		Dmax < 105% in regions outside 10-15mm from PTV-N	
Bladder	Dmax < 105%	V40Gy < 60%* V30Gy < 80%*	Dmax < 105% in regions outside 10-15mm from PTV-N	V40Gy < 60%* V30Gy < 80%*
Rectum	Dmax < 105%	V40Gy < 75%* V30Gy < 95%*	Dmax < 105% in regions outside 10-15mm from PTV-N	V40Gy < 75%* V30Gy < 95%*
Spinal cord	Dmax < 48Gy		Dmax < 48Gy	
Femoral heads	Dmax < 50Gy		Dmax < 50Gy	
Kidney	Dmean < 15Gy	Dmean < 10Gy	Dmean < 15Gy	Dmean < 10Gy
Body	Dmax < 107%		Dmax < 107% in regions outside 10-15mm from PTV-N	
Vagina (if not involved)		$D_{PIBS-2cm}$ < 5Gy		$D_{PIBS-2cm}$ < 5Gy
Conformality		1.10 (V43Gy/Volume of PTV) 1.55 (V36Gy/Volume of PTV)		1.10 (V43Gy/Volume of PTV 1.55 (V36Gy/Volume of PTV)
Transposed ovaries	Dmean < 8 Gy	Dmean < 5 Gy	Dmean < 8 Gy	Dmean < 5 Gy
Duodenum	V55 < 15cm^3		V55 < 15cm^3	

Percentages of 45 Gy unless stated otherwise for nodes
Dmax and Dmin for MC plans based on D99.9% and D0.1%

* Soft constraints which can be used in the treatment plan optimisation. Values are based on the clinical data of EMBRACEII patients entered in the study before June 2017. The constraints are not supposed to be fulfilled by all patients, but rather by ~70-80% of the patients.

10. Plan Evaluation

- Display the absolute isodoses reflecting 107,100, 95, 90, 85, 70 and 50% of the prescribed dose.
- Additional isodose lines should be reflective of OAR dose limits (e.g. 20 and 40Gy).
- Review the position of the 95% isodose lines to ensure it tightly conforms to the PTV.
- Ensure hot spots do not exceed 107%.

11. Treatment Delivery and Verification Imaging

Daily bladder preparation is necessary. Prior to treatment patients will follow information local guidelines.

Radiotherapy will be undertaken in accordance with department policy
Patients shall be positioned as per set up instructions.

For *VMAT* plans, the couch longitudinal value when at the isocentre must not be equal to or greater than 158cm as gantry movement for treatment is prevented.

For all fractions of *VMAT* treatments, the Radiographers treating MUST ensure the gantry will not collide with the patient or couch during the treatment.

Verification Imaging

- Patient-specific IMRT QA as per separate work instructions
- Daily cone beam CT

- Any queries regarding setup and/or imaging shall be directed initially to the Team Leader on the treatment unit for them to resolve or escalate as appropriate.

12. Quality Assurance and Approval Criteria
Prior to signing off the plan as approved, a thorough review and evaluation shall be performed ensuring plan meets study protocol and department policy by all members of the interdisciplinary team.

13. Review on treatment

Weekly by radiotherapy specialist nurse/review therapeutic radiographer, advanced practitioner or consultant gynae radiographer or doctor. If having chemotherapy, nurse or doctor review must be pre-chemotherapy to check suitability for next cycle.

	Chemo	***Non chemo***
Adjuvant endometrium	*Pre chemo FBC & U&Es, LFTs +/- Mg*	*Not required unless specified*
Radical or Recurrent endometrium	*FBC & U&Es, LFTs +/- Mg*	*Not required unless specified*

14. Follow up
With clinician, consultant radiographer, advanced practitioner or CNS

Endometrial Cancer:
Consider patient initiated follow up (PIFU) after 2 years if appropriate as per BGCS 2020 guideline below.

Endometrial cancer	Clinic-based follow-up	Telephone follow-up ± blood test	PIFU
Low risk (<10% ROR)	If patient declines PIFU (for maximum of 2 years from end of treatment)	If patient declines PIFU (for maximum of 2 years from end of treatment)	Offer from end of treatment (after holistic needs assessment at 3 months)
Intermediate risk	Can be offered if patient declines PIFU for 2 years from end of treatment	Can be offered if patient declines PIFU for 2 years from end of treatment	Offer from end of treatment or after 2 years for all
High-intermediate risk	For 5 years (either telephone follow-up or clinic follow-up)	For 5 years (either telephone follow-up or clinic follow-up)	Offer from 2 years from end of treatment in place of telephone follow-up or clinic follow-up
High risk	For 5 years (either telephone follow-up or clinic follow-up)	For 5 years (either telephone follow-up or clinic follow-up)	Offer from 2 years from end of treatment in place of telephone follow-up or clinic follow-up