Bevacizumab (in combination with chemotherapy)

Indication

In combination with platinum and paclitaxel (+/- pembrolizumab) for the 1st line treatment of metastatic cervical cancer

In combination with carboplatin and paclitaxel for the 1st line treatment of ovarian cancer

Regimen details

Cervical Cancer:
Bevacizumab 15mg/kg IV in 100ml 0.9% sodium chloride

Ovarian Cancer (HRD positive with maintenance olaparib & bevacizumab planned post chemotherapy):
Bevacizumab 15mg/kg IV in 100ml 0.9% sodium chloride

Ovarian Cancer (HRD negative or unknown):
Bevacizumab 7.5mg/kg IV in 100ml 0.9% sodium chloride

Cycle frequency

Every 3 weeks

Therapy should be withheld for elective surgery

Number of cycles

Cervical cancer:
Only give with chemotherapy, stop when chemotherapy completed.

Except: if given with pembrolizumab, treatment may be continued alongside pembrolizumab and for maintenance treatment after pembrolizumab has been stopped

Ovarian Cancer (HRD positive with maintenance olaparib & bevacizumab planned post chemotherapy):
Give with chemotherapy then switch to olaparib and bevacizumab regimen post chemotherapy (see separate protocol)

Ovarian cancer (HRD negative or unknown):
Give with chemotherapy and continue following completion of chemotherapy to a total of 18 doses

Administration

15mg/kg doses:
Administer over 30 minutes.

7.5mg/kg doses:
Give first dose over 30 minutes and give subsequent doses over 10 minutes if tolerated

If a patient experiences a mild infusion-related reaction to bevacizumab, give the next dose over 60 minutes with paracetamol and antihistamines (with additional agents such as famotidine and hydrocortisone at choice of clinician and depending on rest of regimen).
If this is tolerated, reduce the infusion time for the next dose to a minimum of 30 minutes and maintain that infusion time for all remaining doses

Check blood pressure before infusion. Be aware of 'white coat syndrome' which can elevate BP.

Pre-medication
None

Emetogenicity
Minimal

Additional supportive medication
None

Extravasation
Neutral

Investigations – pre first cycle

Investigation	Validity period
FBC	14 days
U+E (including creatinine)	14 days
LFT (including AST)	14 days
Blood pressure	14 days
Urine dipstick for proteinuria	14 days

Pre-existing blood pressure must be controlled before starting treatment

Prior radiotherapy is a risk factor for the development of fistulae

The use of VEGF pathway inhibitors in patients with or without hypertension may promote the formation of aneurysms and/or artery dissections. Before initiating bevacizumab, this risk should be carefully considered in patients with risk factors such as hypertension, history of aneurysm, or dissection.

Investigations –pre subsequent cycles
FBC, U+E (including creatinine), LFT (including AST), blood pressure, urine dipstick for proteinuria

Standard limits for administration to go ahead
If blood results not within range, authorisation to administer **must** be given by prescriber/ consultant.

Note investigations refer to bevacizumab only. If given with chemotherapy, please refer to the relevant chemotherapy protocol

Investigation	Limit
Neutrophil count	≥ 1.5 x 10^9/L
Platelet count	≥ 100 x 10^9/L
Bilirubin	≤ 1.5 x ULN
Hb	≥ 95 g/L
Blood pressure	<140/90 mmHg

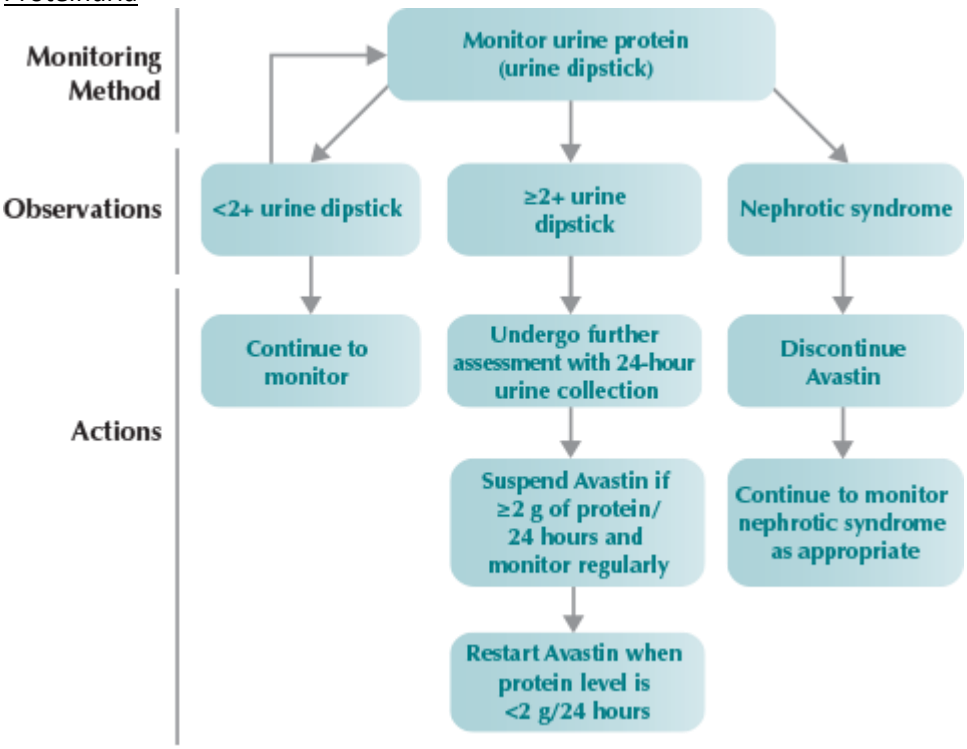
If only Hb is low (below 95g/dl) please contact doctor to arrange for blood transfusion but continue with chemotherapy

Dose modifications

Do not reduce the dose of bevacizumab. Dosing should be interrupted or discontinued as described below

Toxicity	Grade	Dose adjustment
Infusion related reactions	Grade ≤2	If a patient experiences a mild infusion-related reaction to bevacizumab, give the next dose over 60 minutes with paracetamol and antihistamines (with additional agents such as famotidine and hydrocortisone at choice of clinician and depending on rest of regimen). If this is tolerated, reduce the infusion time for the next dose to a minimum of 30 minutes and maintain that infusion time for all remaining doses
	Grade ≥2	Discontinue permanently
Proteinuria (on dipstick)	<2	Continue with bevacizumab as normal
	≥2+	See algorithm below
	Nephrotic syndrome	Permanently discontinue
Gastro-intestinal perforation or dehiscence		Discontinue permanently
Wound healing complications		Bevacizumab should not be initiated for at least 28 days following surgery or until wound is fully healed Bevacizumab should be withheld for 42 days (6 weeks) prior to elective surgery If would healing complications occur during treatment it should be withheld until the wound is fully healed.
Fistula or intra-abdominal abscess		Discontinue permanently
Venous thromboembolic event	Grade 3 Deep DVT or cardiac thrombosis needing anticoagulation or incidental first PE	Hold bevacizumab for 2 weeks May be resumed after initiation of therapeutic dose anticoagulant
	Grade 4 Embolic event including PE with life-threatening thrombus	Discontinue permanently
Arterial thrombotic event	ANY grade	Permanently discontinue
Haemorrhage	Grade 1 or 2	No modification but institute appropriate treatment
	Grade 3 or 4	Discontinue and institute appropriate treatment

Proteinuria



Hypertension

	Definition	**Action**
Grade 1	Asymptomatic transient (<24 hours) increase by >20 mmHg (diastolic) or to >140/90 mmHg if previously normal.	Recheck BP 1 hour later If BP <140/90 mmHg: administer as normal If BP 140/90-150/100 mmHg administer but recheck BP 48 hours later If >150/100 mmHg omit bevacizumab and recheck BP 48 hours later If BP after 48 hours still >140/90 mmHg commence antihypertensive therapy
Grade 2	Recurrent or persistent (>24 hour) increase by 20 mmHg (diastolic) or to >140/90 mmHg if previously normal	Anti-hypertensive therapy should be commenced. Once controlled to <140/90 mmHg bevacizumab can be continued
Grade 3	Requiring more than one antihypertensive or more intensive therapy than previously	Withold bevacizumab for persistent hypertension >140/90 mmHg If hypertension cannot be controlled, discontinue permanently
Grade 4	Life threatening (hypertensive crisis)	Medical emergency Permanently discontinue

Adverse effects –

for full details consult product literature/ reference texts

Fistulae and perforations
Wound healing complications
Hypertension
Posterior Reversible Encephalopathy Syndrome (PRES)
Proteinuria
Arterial thromboembolism
Venous thromboembolism
Haemorrhage
Aneurysms and artery dissections
Congestive heart failure (CHF)
Neutropenia and infections
Hypersensitivity and infusion reactions

References

Avastin SPC - https://www.medicines.org.uk/emc/product/3885

THIS PROTOCOL HAS BEEN DIRECTED BY DR YIANNAKIS, DESIGNATED LEAD CLINICIAN FOR GYNAECOLOGICAL CANCER

RESPONSIBILITY FOR THIS PROTOCOL LIES WITH THE HEAD OF SERVICE

Date: September 2026
Review: September 2028
VERSION: 3