

<b>Indication</b>	<p>For the treatment of previously untreated metastatic Merkel cell carcinoma. For the treatment of previously treated (with systemic cytotoxic chemotherapy) metastatic Merkel cell carcinoma</p> <p>Monotherapy for the first-line maintenance treatment of locally advanced or metastatic urothelial carcinoma in patients that have not progressed on 1st line platinum-containing combination chemotherapy (patients must have completed at least 4 but no more than 6 cycles of platinum-based chemotherapy and treatment with avelumab must commence within 4 to 10 weeks of previous chemotherapy).</p> <p>NB patients must not have received prior treatment with an anti-PD-1, anti-PD-L1, anti-PD-L2, anti-CD137, or anti-Cytotoxic T-lymphocyte-associated antigen-4 (CTLA-4) antibody unless the patient has received maintenance avelumab via the EAMS program.</p>
<b>Treatment Intent</b>	Palliative
<b>Frequency and number of cycles</b>	<p>Every 2 weeks (14 days)</p> <p>Merkel Cell: Continue until disease progression or unacceptable toxicity or patient choice.</p> <p>Urothelial indication: Continue until disease progression or symptomatic deterioration or unacceptable toxicity or patient choice or after a maximum of 5 calendar years of avelumab treatment (as measured from cycle 1 day 1 of avelumab administration), whichever of these events occurs first.</p> <p>A formal medical review as to whether treatment with avelumab should continue or not will be scheduled to occur at least by the end of the first 8 weeks of treatment</p>
<b>Monitoring parameters pre-treatment</b>	<ul style="list-style-type: none"> <li>• <b>Virology screening:</b> All new patients referred for systemic anti-cancer treatment should be screened for hepatitis B and C and the result reviewed prior to the start of treatment. Patients not previously tested who are starting a new line of treatment, should also be screened for hepatitis B and C. Further virology screening will be performed following individual risk assessment and clinician discretion.</li> <li>• Thyroid function must be assessed at baseline then every 6-8 weeks or as clinically indicated.</li> <li>• Cortisol monitoring should be undertaken in line with ESMO immunotherapy toxicity guidance available on KMCC website (see link below). Cortisol level should not be taken within 24 hours of the last steroid dose.</li> <li>• Monitor FBC, LFT, U&amp;E, glucose at each cycle. If PLT &lt;75 or neuts &lt;1.0 d/w consultant.</li> <li>• <b>Brain metastases:</b> <ul style="list-style-type: none"> <li>○ Merkel Cell: If the patient has brain metastases, then the patient should have been treated for these and be symptomatically stable prior to starting avelumab.</li> <li>○ Urothelial: no symptomatically active brain metastases or leptomeningeal metastases.</li> </ul> </li> <li>• <b>Renal impairment:</b> No dose adjustment in mild or moderate renal impairment (30-89ml/min). There are insufficient data in patients with severe renal impairment (&lt;30ml/min) for dosing recommendations.</li> <li>• <b>Hepatic impairment:</b> No dose adjustment is needed for patients with mild hepatic impairment (bilirubin &lt;= ULN and AST &gt; ULN or bilirubin &gt; 1.0 x to 1.5 x ULN and any AST). There are insufficient data in patients with moderate or severe hepatic impairment (bilirubin &gt;1.5 x ULN) for dosing recommendations.</li> </ul>

Protocol No	MULTI-024	Kent and Medway SACT Protocol Disclaimer: No responsibility will be accepted for the accuracy of this information when used elsewhere.	
Version	V2	Written by	M.Archer
Supersedes version	V1	Checked by	C.Waters V2 M.Capomir V1 V2 changes made in line with KMCC immunotherapy working group guidance
Date	30.10.2023	Authorising consultant (usually NOG Chair)	J.Turner V1 C.Thomas V1

	<ul style="list-style-type: none"> <li>• <b>Infusion-related reactions:</b> see table 1. Monitor for pyrexia, chills, flushing, hypotension, dyspnoea, wheezing, back pain, abdominal pain, and urticaria. In case of recurrence of Grade 1 or Grade 2 infusion-related reaction, the patient may continue to receive avelumab under close monitoring, after appropriate infusion rate modification and premedication with paracetamol and antihistamine.</li> <li>• <b>Management of adverse reactions and dose adjustments:</b> <ul style="list-style-type: none"> <li>○ Dose escalation or reduction is not recommended.</li> <li>○ Dosing delay or discontinuation may be required based on individual safety and tolerability; see Table 1.</li> <li>○ For <u>Immune-related adverse reactions</u>, based on the severity of the adverse reaction, avelumab should be withheld and corticosteroids administered. If corticosteroids are used to treat an adverse reaction, a taper of at least 1 month duration should be initiated upon improvement.</li> <li>○ See guidelines for management of immune-related adverse reactions following immunotherapy: <a href="https://www.kmcc.nhs.uk/medicines-and-prescribing-incorporating-sact-pathways/immunotherapy/">https://www.kmcc.nhs.uk/medicines-and-prescribing-incorporating-sact-pathways/immunotherapy/</a></li> </ul> </li> <li>• <b>Common drug interactions (for comprehensive list refer to BNF/SPC):</b> No interaction studies have been conducted with avelumab.</li> <li>• The use of systemic corticosteroids or immunosuppressants before starting avelumab should be avoided.</li> <li>• Each patient should be given an immunotherapy alert card (to be carried until at least 5 months after the last dose of treatment) and patients must be advised to contact the oncology team or the 24 hour hot-line immediately they experience any side effect, as some side effects worsen rapidly. Prompt management of side effects can ensure that the patient continues with treatment.</li> <li>• Patients should be given the Bavencio® patient alert card and the patient safety leaflet “Important safety information to minimise the risk of immune-related side effects”</li> <li>• <b>Driving:</b> Avelumab can cause fatigue in some patients and therefore use caution when driving or using machines.</li> </ul>
<b>Reference(s)</b>	KMCC protocol MULTI-024 V1 SPC accessed online 22.09.2023 KMCC Immunotherapy Working Group guidance

NB For funding information, refer to CDF and NICE Drugs Funding List

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**Table 1: Guidelines for withholding or discontinuation of Avelumab**

Treatment-related adverse reaction	Severity*	Treatment modification
Infusion-related reactions	Grade 1 infusion-related reaction	Reduce infusion rate by 50%
	Grade 2 infusion-related reaction	Withhold until adverse reactions recover to Grade 0-1; restart infusion with a 50% slower rate
	Grade 3 or Grade 4 infusion-related reaction	Permanently discontinue
Pneumonitis	Grade 2 pneumonitis	Withhold until adverse reactions recover to Grade 0-1
	Grade 3 or Grade 4 pneumonitis or recurrent Grade 2 pneumonitis	Permanently discontinue
Hepatitis	Aspartate aminotransferase (AST) or alanine aminotransferase (ALT) greater than 3 and up to 5 times upper limit of normal (ULN) or total bilirubin greater than 1.5 and up to 3 times ULN	Withhold until adverse reactions recover to Grade 0-1
	AST or ALT greater than 5 times ULN or total bilirubin greater than 3 times ULN	Permanently discontinue
Colitis	Grade 2 or Grade 3 colitis or diarrhoea	Withhold until adverse reactions recover to Grade 0-1
	Grade 4 colitis or diarrhoea or recurrent Grade 3 colitis	Permanently discontinue
Pancreatitis	Suspected pancreatitis	Withhold
	Confirmed pancreatitis	Permanently discontinue
Myocarditis	Suspected myocarditis	Withhold
	Confirmed myocarditis	Permanently discontinue
Endocrinopathies (hypothyroidism, hyperthyroidism, adrenal insufficiency, hyperglycaemia)	Grade 3 or Grade 4 endocrinopathies	Withhold until adverse reactions recover to Grade 0-1
Nephritis and renal dysfunction	Serum creatinine more than 1.5 and up to 6 times ULN	Withhold until adverse reactions recover to Grade 0-1
	Serum creatinine more than 6 times ULN	Permanently discontinue
Skin reactions	Grade 3 rash	Withhold until adverse reactions recover to Grade 0-1
	Grade 4 or recurrent Grade 3 rash or confirmed Stevens–Johnson syndrome (SJS) or Toxic epidermal necrolysis (TEN)	Permanently discontinue
Other immune-related adverse reactions (including myositis, hypopituitarism, uveitis, Guillain-Barré syndrome,	For any of the following: • Grade 2 or Grade 3 clinical signs or symptoms of an immune-related adverse reaction not described above.	Withhold until adverse reactions recover to Grade 0-1

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myasthenia gravis, myasthenic syndrome)	For any of the following: <ul style="list-style-type: none"> <li>• Life threatening or Grade 4 adverse reaction (excluding endocrinopathies controlled with hormone replacement therapy)</li> <li>• Recurrent Grade 3 immune-related adverse reaction</li> <li>• Requirement for 10 mg per day or greater prednisone or equivalent for more than 12 weeks</li> <li>• Persistent Grade 2 or Grade 3 immune-mediated adverse reactions lasting 12 weeks or longer</li> </ul>	Permanently discontinue
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**Repeat every 2 weeks (14 days)**

Day	Drug	Dose	Route	Infusion Duration	Administration Details
1	Paracetamol	1g	PO	STAT	Given at least 30 minutes before the Avelumab infusion.  May be omitted if the first four infusions are completed without an infusion-related reaction.
	Chlorphenamine	4mg	PO	STAT	
	<b>AVELUMAB</b>	<b>800mg</b>	IVI	60 Minutes	In 250ml 0.9% Sodium chloride via low-protein binding in-line or add on 0.2 micrometre filter Flush line with sodium chloride 0.9%
TTO	Drug	Dose	Route	Directions	
Day 1	Metoclopramide	10mg	PO	10mg up to 3 times a day as required. Do not take for more than 5 days continuously.	

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