

Equality and Health Impact Assessment

Nivolumab monotherapy as a first-line treatment for patients with metastatic or locally advanced and unresectable, deficient mismatch repair (dMMR) / high microsatellite instability (MSI-H) oesophageal and gastric cancer (OW28)

AWTTC will fill in an Equality and Health Impact Assessment in parallel with each development stage of our projects. This will help us to follow the five ways of working for public bodies, and work to achieving the wellbeing goals, outlined in the Well-Being of Future Generations (Wales) Act 2015.

Date: 06/03/2024

1.	AWTTC contact details	Tel: 02921 826900 Email: awttc@wales.nhs.uk
2.	State the objectives of the project.	Assessment of nivolumab monotherapy as a first-line treatment for patients with metastatic or locally advanced and unresectable, deficient mismatch repair (dMMR) / high microsatellite instability (MSI-H) oesophageal and gastric cancer via the One Wales Medicines assessment process
3.	Evidence and background information considered. For example: <ul style="list-style-type: none"> • population data • staff and service users' data, as applicable • needs assessment • engagement and involvement findings • research • good practice guidelines • participant knowledge 	Nivolumab as monotherapy was previously available as part of the NG161 COVID-19 interim guidelines. Its indication on the Cancer Drugs Fund (CDF) was as an option to treat microsatellite instability-high (MSI-H) upper gastrointestinal cancers as an alternative to first-line chemotherapy. Nivolumab was later removed from the CDF for this indication and access to this treatment in Wales via this route was discontinued in March 2023. Clinicians indicate that for oesophageal or gastric tumours that are MSI-H or mismatch repair deficient (dMMR), patients have poorer outcomes and poorer response to chemotherapy; immunotherapy alone is associated with high response rates and excellent long-term outcomes. Clinicians in Wales consider there is an unmet need and have identified a cohort of patients who



- list of stakeholders and how stakeholders have engaged in the development stages
- comments from those involved in the designing and development stages

[Population pyramids](#) are available from Public Health Wales Observatory.

could benefit from this treatment, nivolumab was therefore considered suitable for assessment though the One Wales medicines process.

Nivolumab is a fully humanised IgG4 monoclonal antibody which targets the programmed cell death-1 receptor (PD-1) and blocks its interaction with programmed death ligands 1 and 2 (PD-L1 and PD-L2), to promote an anti-tumour immune response in T-cells. The dMMR/MSI-H phenotypes found across upper gastrointestinal cancers are characterised by high tumour mutational burden and high neoantigen load. Increased neoantigen presentation can lead to higher tumour immunogenicity with increased populations of tumour-infiltrating lymphocytes and increased immune checkpoint expression. These characteristics make these tumours more likely to respond to anti PD-1 therapy than those that are microsatellite stable.

The genomic instability characteristic of dMMR/MSI-H tumours appears to be associated with chemoresistance, and the benefits of standard adjuvant or neoadjuvant chemotherapy is uncertain.

Survival rates for upper gastrointestinal cancers are improving and mortality rates have decreased by 9% in the UK in the last 10 years. But survival remains poor due to late diagnosis as symptoms can be mistaken for more benign conditions. Around 17% of people diagnosed with oesophageal cancer and around a fifth (21%) of people diagnosed with stomach cancer in 2016 - 2020 in Wales are expected to survive their disease for 5 years or more. For patients with stage 4 (metastatic) oesophageal or gastric cancer 1-year survival rates are 22% and 18% respectively; patients are not expected to survive for 5 years or longer.

Gastric cancer is the 17th most common cancer in the UK, accounting for 2% of all new cancer cases. Oesophageal cancer is the 14th most common cancer in the UK, accounting for 2% of all new cancer cases. Between 2018 and 2020 there were 2596 cases of oesophageal and gastric cancer in Wales, at diagnosis 1120 of these were stage 4 (metastatic), this gives an annual



average of 373 cases. Clinical pathology experts inform us that in Wales 30% of gastric cancer tumours tested would be HER2 negative and PD-L1 negative (approximately 112 patients annually), at which point they would be tested for dMMR/MSI. Approximately 4 – 8% of gastric and gastroesophageal junction cancers present with dMMR/MSI-H tumours, indicating between 5 and 9 newly diagnosed patients a year.

An evidence status report produced by AWTTC summarising the clinical and cost effectiveness data, budget impact and societal, patient and service impact of nivolumab for this indication will be sent to the company and to clinicians for comment. Clinicians and patient organisation representatives are invited to attend the One Wales Medicines Assessment Group (OWMAG) meeting. The constitution of the OWMAG is available [online](#).

References:

- *All Wales Therapeutics and Toxicology Centre. Commercial Medicines Access Team (CMAT). Internal communication. Accessed January 2024*
- *Bristol Myers Squibb Pharmaceuticals limited. OPDIVO® 10 mg/mL concentrate for solution for infusion. Summary of Product Characteristics. Dec 2023. Available at: <https://www.medicines.org.uk/emc/product/6888/smpc#gref>. Accessed January 2024.*
- *Boutin M, and Gill S. Controversies and management of deficient mismatch repair gastrointestinal cancers in the neoadjuvant setting. Therapeutic Advances in Medical Oncology. 2023(15):p1-13.*
- *Zamarin D, and Jazaeri AA. Leveraging immunotherapy for the treatment of gynecologic cancers in the era of precision medicine. Gynecologic Oncology. 2016;141(1):86-94.*
- *Cancer Research UK. Oesophageal cancer incidence statistics. Available at: [Page 3 of 16](https://www.cancerresearchuk.org/health-</i></div><div data-bbox=)*



		<p><i>professional/cancer-statistics/statistics-by-cancer-type/oesophageal-cancer/incidence#heading-Six. Accessed January 2024.</i></p> <ul style="list-style-type: none">• <i>The Welsh Cancer Intelligence & Surveillance Unit (WCISU). Cancer survival in Wales, 2002-2020: Wales analysis. Available at: https://phw.nhs.wales/services-and-teams/welsh-cancer-intelligence-and-surveillance-unit-wcisu/cancer-reporting-tool-official-statistics/. Accessed January 2024.</i>
4.	Who will this project affect?	Patients and staff



5. EQIA - How will the project impact on people?

Questions in this section relate to the impact on people based on their 'protected characteristics'.

How will the project impact on, or affect:	Potential positive and/or negative impacts	Recommendations for improvement/ mitigation	Actions taken (and who by).
<p>5.1 Age For most purposes, the main categories are people aged:</p> <ul style="list-style-type: none">• under 18 years;• between 18 and 65 years;• over 65 years.	<p>We do not expect a potential negative, or unequal, impact on people based on their age.</p> <p>[Note: For prescription medicines we expect the prescriber to have prescribed or advised their use within the terms of their UK marketing authorisations. Healthcare professionals should take note of the contraindications, warnings, safety recommendations and any monitoring needs for the medicine. These are explained in the Summary of Product Characteristics (SmPC) for the medicine or the British National Formulary. Healthcare professionals should follow relevant</p>	<p>None</p>	<p>none</p>



How will the project impact on, or affect:	Potential positive and/or negative impacts	Recommendations for improvement/ mitigation	Actions taken (and who by).
	professional guidance and take full responsibility for the decision when prescribing or advising the use of off-label or unlicensed medicines. This includes considering the contraindications, warnings, monitoring requirements and other safety recommendations for the medicine (MHRA guidance on off-label or unlicensed use of medicines)]		
5.2 Persons with a disability as defined in the Equality Act 2010 Those with physical impairments, learning disability, sensory loss or impairment, mental health conditions, long-term medical conditions such as diabetes.	We do not expect a potential negative, or unequal, impact on people with a disability.	All related documents published on the AWTTC website will meet accessibility requirements. Any patient-facing materials will be also be produced as easy read booklets in Welsh and English.	



How will the project impact on, or affect:	Potential positive and/or negative impacts	Recommendations for improvement/ mitigation	Actions taken (and who by).
5.3 People of different genders: Consider men, women, people undergoing gender reassignment. N.B. Gender-reassignment is anyone who proposes to, starts, is going through or who has completed a process to change his or her gender with or without going through any medical procedures. Sometimes referred to as Trans or Transgender.	We do not expect a potential negative, or unequal, impact on people based on their gender, or on people undergoing gender reassignment.	none	none
5.4 People who are married or who have a civil partner.	We do not expect a potential negative, or unequal, impact on people based on their marital status or being in a civil partnership.	none	none
5.5 Women who are expecting a baby, who are on a break from work after having a baby, or who are breastfeeding. They are protected for 26 weeks after having a baby whether or not they are on maternity leave.	Nivolumab is not recommended for women who are pregnant or who want to become pregnant. Please refer to the SmPC	Prescribers should take account of the Summary of Product Characteristics (SmPC) when prescribing any medicines for women who are pregnant, or who are breastfeeding.	The SmPC criteria specify which people are excluded from treatment due to the associated risks of treatment. This will be identified for consideration of any change to the advice at the next review if



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	The manufacturer of nivolumab advises that a decision must be made whether to discontinue breastfeeding or discontinue nivolumab, taking in to account the benefit of breast-feeding for the child and the benefit of therapy for the woman.		there is a change to the current advice for pregnant and breastfeeding women.
5.6 People of a different race, nationality, colour, culture or ethnic origin including non-English speakers, gypsies and travellers, migrant workers. The Runnymede Trust	We do not expect a potential negative, or unequal, impact on people of a different race, nationality, colour, culture or ethnic origin.	none	none
5.7 People with a religion or belief or with no religion or belief. The term 'religion' includes a religious or philosophical belief. Implications of religious beliefs on selection of medicines (BMJ)	We do not expect a potential negative, or unequal, impact on people who have a religion or belief, or people with no religion of belief.	none	none



How will the project impact on, or affect:	Potential positive and/or negative impacts	Recommendations for improvement/ mitigation	Actions taken (and who by).
In practice: guidance on religion, personal values and beliefs (General Pharmaceutical Council)			
5.8 People who are attracted to other people of: <ul style="list-style-type: none">the opposite sex (heterosexual);the same sex (lesbian or gay);both sexes (bisexual). Stonewall	We do not expect a potential negative, or unequal, impact on people based on who they are attracted to.	none	none
5.9 People who communicate using the Welsh language in terms of correspondence, information leaflets, or service plans and design.	We do not expect a potential negative, or unequal, impact on people who communicate using the Welsh language. Any patient-facing materials will be produced in Welsh and English, in line with the Welsh language standards, including easy read booklets.	Any patient-facing materials will be produced in Welsh and English, in line with the Welsh language standards, including easy read booklets.	
5.10 People according to their income related group.	This treatment is provided in a hospital treatment centre. This might have a negative impact on a patient who has to take time out of work to receive their treatment. There may be issues in relation to travel	Macmillan cancer support have useful information on coping at work during treatment, self-employment and cancer and information on benefits and financial support, transport and parking.	Patients should be directed to appropriate organisations and services by their healthcare providers.



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	costs. However, the comparator treatment of chemotherapy would also require administration in hospital. A negative recommendation is not expected to have an impact on this criterion.	Some hospitals operate patient transport services.	
5.11 People according to where they live.	Treatments will be provided at regional centres. Park and ride services, public transport links are available. A negative recommendation is not expected to have an impact on this criterion.	See 5.10	See 5.10
5.12 Consider others who face health inequalities, such as: <ul style="list-style-type: none">• Looked after and accommodated children and young people• Carers: paid/unpaid, family members	There may be issues in the ability to access health care for certain people. A negative recommendation is not expected to have an impact on this criterion.		



How will the project impact on, or affect:	Potential positive and/or negative impacts	Recommendations for improvement/ mitigation	Actions taken (and who by).
<ul style="list-style-type: none">• People who are homeless or those who experience homelessness: people on the street; those staying temporarily with friends/family; those in hostels/B&Bs• People involved in the criminal justice system: offenders in prison or on probation, ex-offenders• People with addictions and substance misuse problems• People who have poor literacy• People living in remote, rural and island locations			
5.13 Consider any other groups and risk factors relevant to this project.	None identified		

6. HIA - How will the project impact on the health and wellbeing of people in Wales and help address inequalities in health?

Questions in this section relate to the impact on the overall health of individual people, and the impact on the population in Wales.

How will the project impact on, or affect:	Potential positive and/or negative impacts and any particular groups affected	Recommendations for improvement/ mitigation	Actions taken (and who by) <i>Refer to where the mitigation is included in the document, as appropriate.</i>
6.1 People being able to access the service offered.	Service will only be available at certain locations meaning patients will need to travel further to access these. A negative recommendation is not expected to have an impact on this criterion.	See 5.10	See 5.10
6.2 People being able to improve or maintain healthy lifestyles.	We do not expect a potential negative, or unequal, impact on people's ability to improve or maintain healthy lifestyles.		
6.3 People in terms of their income and employment status.	Treatment will require regular hospital attendance and may be associated with adverse effects that affect the ability of a person to work. A negative recommendation is not expected to have an impact on this criterion.	Patient organisation summaries will only be available where patient confidentiality is ensured. See also 5.10	



How will the project impact on, or affect:	Potential positive and/or negative impacts and any particular groups affected	Recommendations for improvement/ mitigation	Actions taken (and who by) <i>Refer to where the mitigation is included in the document, as appropriate.</i>
	We will consider the impact of the disease on a person's employment status. Patient organisations, the committee's lay members and clinicians have the opportunity to inform the group about how the disease affects the employment of patients and the effects of treatment.		
6.4 People in terms of their use of the physical environment.	This treatment is provided in a hospital treatment centre. This may not be near to the person's residence. Park and ride services, public transport links are available. A negative recommendation is not expected to have an impact on this criterion.	See also 5.10	
6.5 People in terms of social and community influences on their health.	We do not expect a potential negative, or unequal, impact on people in terms of social and community influences on their health.		



How will the project impact on, or affect:	Potential positive and/or negative impacts and any particular groups affected	Recommendations for improvement/ mitigation	Actions taken (and who by) <i>Refer to where the mitigation is included in the document, as appropriate.</i>
6.6 People in terms of macro-economic, environmental and sustainability factors.	We do not expect a potential negative, or unequal, impact on people in terms of macroeconomic, environmental and sustainability factors.	The pharmaceutical industry aligns medicine manufacturing with sustainability practices and in line with the policy on climate change-international federation of pharmaceutical manufacturers association.	

7. Please fill in section 7.1 after completing the EqHIA, and fill in the action plan.

<p>7.1 Please summarize the potential positive and/or negative impacts of the project.</p>	<p>There may be issues in relation to need for treatment to be given in a hospital setting. People should be signposted on how to access appropriate support. A negative recommendation is not expected to have an impact.</p>
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Action plan for mitigation or improvement and implementation

	Action	Lead(s)	Timescale	Actions taken (<i>state who by</i>)
<p>7.2 What are the key actions identified as a result of completing the EqHIA?</p>	<ul style="list-style-type: none"> • consult with clinical experts in Wales; • consult with patient organisations, patients and carers in Wales (or the UK); • invite comments through the AWTTC website. 	AWTTC	March-April 2024 and June 2024	
<p>7.3 Is a more comprehensive Equalities Impact Assessment or Health Impact Assessment needed?</p>	No			
<p>7.4 What are the next steps?</p>	<ul style="list-style-type: none"> • Process continues unchanged • Publish report of this impact assessment on the AWTTC website. • Monitor and review 			



	Action	Lead(s)	Timescale	Actions taken (<i>state who by</i>)
7.5 Review of project and EqHIA		AWTTC	July 2025	

AWTTC's EqHIA template is adapted from the Cardiff & Vale University Health Board EHIA template.