

Pembrolizumab with trastuzumab and chemotherapy for untreated locally advanced unresectable or metastatic HER2-positive gastric or gastro-oesophageal junction adenocarcinoma

Technology appraisal guidance

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Your responsibility

The recommendations in this guidance represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take this guidance fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this guidance is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

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1 Recommendations

- 1.1 Pembrolizumab with trastuzumab, fluoropyrimidine- and platinum-containing chemotherapy is not recommended, within its marketing authorisation, for untreated locally advanced unresectable or metastatic HER2-positive gastric or gastro-oesophageal junction (GOJ) adenocarcinoma in adults whose tumours express PD-L1 with a combined positive score (CPS) of 1 or more.
- 1.2 This recommendation is not intended to affect treatment with pembrolizumab with trastuzumab, fluoropyrimidine- and platinum-containing chemotherapy that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.

Why the committee made these recommendations

There is an unmet need for treatments for untreated locally advanced unresectable or metastatic HER2-positive gastric or GOJ adenocarcinoma. Usual treatment is trastuzumab plus platinum-containing chemotherapy (from now, trastuzumab plus chemotherapy). Pembrolizumab plus trastuzumab, fluoropyrimidine- and platinum-containing chemotherapy (from now, pembrolizumab plus trastuzumab and chemotherapy) would be used in adults whose tumours express PD-L1 with a CPS of 1 or more.

Clinical trial evidence suggests that pembrolizumab plus trastuzumab and chemotherapy increases how long people have before their cancer gets worse compared with trastuzumab plus chemotherapy. The evidence suggests it also increases how long they live, but the long-term effect is very uncertain.

When taking into account the committee's preferred assumptions, the cost-effectiveness estimate is not within the range that NICE usually considers an acceptable use of NHS resources. So, pembrolizumab plus trastuzumab and chemotherapy is not recommended.

2 Information about pembrolizumab

Marketing authorisation indication

- 2.1 Pembrolizumab (Keytruda, Merck Sharp and Dohme), in combination with trastuzumab, fluoropyrimidine- and platinum-containing chemotherapy, is indicated for 'the first-line treatment of locally advanced unresectable or metastatic HER2-positive gastric or gastro-oesophageal junction adenocarcinoma in adults whose tumours express PD-L1 with a CPS of 1 or more'.

Dosage in the marketing authorisation

- 2.2 The dosage schedule is available in the [summary of product characteristics for pembrolizumab](#).

Price

- 2.3 The list price of pembrolizumab is £2,630 per 100 mg per 4 ml vial (excluding VAT; BNF online accessed February 2024).
- 2.4 The company has a [commercial arrangement](#). This makes pembrolizumab available to the NHS with a discount and it would have also applied to this indication if the technology had been recommended. The size of the discount is commercial in confidence. It is the company's responsibility to let relevant NHS organisations know details of the discount.

3 Committee discussion

The evaluation committee considered evidence submitted by Merck Sharp and Dohme (MSD), a review of this submission by the external assessment group (EAG), and responses from stakeholders. See the [committee papers](#) for full details of the evidence.

The condition

Details of condition

- 3.1 The patient experts explained that the symptoms of gastric or gastro-oesophageal junction (GOJ) cancer have a substantial impact on quality of life. The symptoms of advanced stage cancer may include a lack of appetite, weight loss, fluid in the abdomen and blood in the stool. The patient experts noted that symptoms can affect physical, social, and work life, and impact nutritional status and the ability to eat. They also highlighted the psychological distress because of poor prognosis and the demanding treatment pathway of gastric or GOJ cancer. The committee noted the wide impact of symptom burden, particularly in advanced stages, on the quality of life for people with gastric or GOJ cancer. The patient experts highlighted that the cancer is mostly diagnosed at an advanced stage because of a lack of screening and vague early symptoms. So, there are limited effective treatment options (see [section 3.2](#)) and survival prognosis is poor. The clinical experts explained that treatment aims to slow progression of the disease, extend life, and maintain or improve quality of life for as long as possible but new and effective treatment options are still needed. The committee noted the poor survival prognosis of people with gastric and GOJ cancer and understood that there is an unmet need for additional treatment options.

Clinical management

Treatment pathway and comparators

- 3.2 Trastuzumab plus platinum-containing chemotherapy (from now, trastuzumab

plus chemotherapy) is recommended by NICE for people with HER2-positive metastatic gastric or GOJ cancer (see [NICE's technology appraisal guidance on trastuzumab for the treatment of HER2-positive metastatic gastric cancer](#)).

People with a performance status of 0 to 2 and no significant comorbidities may also be offered 5-fluorouracil or capecitabine with cisplatin or oxaliplatin (doublet chemotherapy) or 5-fluorouracil or capecitabine with cisplatin or oxaliplatin plus epirubicin (triplet chemotherapy) (see [NICE guideline 83 on oesophago-gastric cancer: assessment and management in adults](#)). The company used trastuzumab plus chemotherapy as the only comparator in its submission. It noted that trastuzumab plus chemotherapy is recommended by NICE for metastatic gastric or GOJ cancer, but not for locally advanced cancer. The company stated that the European Society of Medical Oncology guidelines and clinical experts suggested that locally advanced unresectable gastric or GOJ cancers are treated similarly to metastatic cancer. So, it considered doublet or triplet chemotherapy, without trastuzumab, not to be relevant comparators. The EAG agreed that trastuzumab plus chemotherapy is the most relevant comparator. The committee concluded that trastuzumab plus chemotherapy is the most appropriate comparator for this appraisal.

Clinical effectiveness

Data sources

3.3 Clinical evidence for pembrolizumab plus trastuzumab, fluoropyrimidine- and platinum-containing chemotherapy (from now, pembrolizumab plus trastuzumab and chemotherapy) compared with trastuzumab plus chemotherapy is from KEYNOTE-811. This is a phase 3, randomised, double-blind, placebo-controlled trial, that included people aged 18 and over with untreated locally advanced or unresectable HER2-positive gastric or GOJ cancer. KEYNOTE-811 is a global study, carried out across 192 centres in 19 countries, including 29 people from the UK across 10 centres. Randomisation in KEYNOTE-811 was arranged by:

- Geographic region:
 - Western Europe, Israel, North America and Australia

- Asia
- 'Rest of the world', including South America
- PD-L1 status
 - combined positive score (CPS) of 0
 - CPS of 1 or more

The company's evidence submission (including its economic modelling, see [section 3.7](#)) focused on a subgroup of people from KEYNOTE-811 whose tumours express PD-L1 with a CPS of 1 or more, which is in line with the marketing authorisation for pembrolizumab with trastuzumab and chemotherapy. The company also only used evidence from people outside the Asia region (the non-Asia cohort). This was generated in a post-hoc analysis by combining data from the Western Europe, Israel, North America and Australia cohort and the 'rest of the world' cohort (see [section 3.5](#)). The committee concluded that KEYNOTE-811 was appropriate for decision-making.

Clinical study results

- 3.4 In the company submission, the company presented the results of interim analysis 2 (data cut off May 2022) which had a median follow-up of 17 months in the pembrolizumab plus trastuzumab and chemotherapy arm and 13.9 months in the trastuzumab plus chemotherapy arm. At the first appraisal committee meeting, the committee was aware of the recently published [interim analysis 3 of KEYNOTE-811](#) that had a longer follow up. During consultation, the company provided the results of interim analysis 3 (data cut off March 2023) which had a median follow-up of 20 months in the pembrolizumab plus trastuzumab and chemotherapy arm and 18.2 months in the trastuzumab plus chemotherapy arm. For the non-Asia cohort with PD-L1 and a CPS of 1 or more, pembrolizumab plus trastuzumab and chemotherapy significantly improved both progression-free survival (HR 0.64, 95% CI 0.51 to 0.80; p-value equal to 0.0001) and overall survival (HR 0.70, 95% CI 0.56 to 0.87; p-value equal to 0.0007), compared with trastuzumab plus chemotherapy. The committee concluded that interim analysis

3 of KEYNOTE-811 was appropriate for decision-making.

Generalisability of trial population

- 3.5 The EAG questioned the validity of using clinical effectiveness data from the non-Asia cohort. This is because the non-Asia cohort was not a pre-specified subgroup in KEYNOTE-811. The EAG also highlighted that the progression-free and overall survival data from the 'rest of the world' cohort was more favourable for pembrolizumab plus trastuzumab and chemotherapy, compared with survival data from the Western Europe, Israel, North America and Australia cohort. It considered that the company did not provide justification for this so requested that the company do a scenario analysis using clinical effectiveness data from the Western Europe, Israel, North America and Australia cohort. The company stated that clinical experts considered that all trial centres within the non-Asia cohort, including trial centres in the 'rest of the world' cohort, to be generalisable to NHS clinical practice. It also highlighted that using data from the non-Asia cohort, including the 'rest of the world' cohort, meant that a larger sample size could be used. The clinical experts at the appraisal committee meeting considered that the non-Asia cohort, including the 'rest of the world' cohort, is generalisable to NHS clinical practice. The committee asked whether excluding data from people treated in Asia would affect the generalisability of the evidence to people of an Asian family background who are receiving treatment in the NHS. The clinical experts explained that outcomes are better for people in East Asia compared with the rest of the world. This is because of differences in clinical practice in these regions, which means that people are diagnosed earlier so treatments are more effective, rather than biological differences based on family background. So, the committee considered that it is appropriate to not include the Asia cohort in the analysis for decision-making. It also noted that there was no clear reason for any difference between the Western Europe, Israel, North America and Australia cohort and the 'rest of the world' cohort, and that using data from the non-Asia cohort maintains a larger sample size. The committee concluded that the non-Asia cohort is generalisable to NHS clinical practice and is appropriate for decision-making.

Economic model

Company's modelling approach

- 3.6 The company submitted a partitioned survival model to estimate the cost-effectiveness of pembrolizumab plus trastuzumab and chemotherapy compared with trastuzumab plus chemotherapy. It had 3 health states: progression-free, progressed disease and death. The committee acknowledged that the partitioned survival model is a standard approach to estimate the cost-effectiveness of cancer drugs and considered it to be appropriate for decision-making.

Long-term overall survival extrapolations

- 3.7 During consultation, the company updated its long-term overall survival predictions for the pembrolizumab plus trastuzumab and chemotherapy and trastuzumab plus chemotherapy arms using data from the non-Asia cohort with PD-L1 and a CPS of 1 or more from interim analysis 3 of KEYNOTE-811. The company used independently fitted survival curves to predict the long-term survival for the pembrolizumab plus trastuzumab and chemotherapy and trastuzumab plus chemotherapy arms. For overall survival, the company's preferred long-term extrapolations were:

- 2-knot odds spline model for the pembrolizumab plus trastuzumab and chemotherapy arm and
- Weibull for the trastuzumab plus chemotherapy arm.

The EAG's preferred long-term extrapolations were:

- 1-knot hazard spline model for pembrolizumab plus trastuzumab and chemotherapy arm and
- 1-knot normal spline model for the trastuzumab plus chemotherapy arm.

Using the EAG's extrapolations, the risk of death was greater in the pembrolizumab plus trastuzumab and chemotherapy arm compared with the trastuzumab plus chemotherapy arm at about 10 years. So the EAG set the

survival rate to be same in both treatment arms from this time point onwards. The EAG highlighted that the company's preferred extrapolations have the highest overall survival predictions for the pembrolizumab plus trastuzumab and chemotherapy arm and the lowest overall survival predictions for the trastuzumab plus chemotherapy arm. This means that the company's preferred extrapolations predict the highest overall survival benefit for pembrolizumab plus trastuzumab and chemotherapy compared with trastuzumab plus chemotherapy of all fitted parametric and spline models. The EAG also noted that the statistical goodness-of-fit and visual assessment suggests that the company's preferred extrapolation for the trastuzumab plus chemotherapy arm does not fit the data from KEYNOTE-811 well. The EAG also considered that the long-term survival rates in the model for people having pembrolizumab plus trastuzumab and chemotherapy were high and unlikely to be clinically plausible. The company explained that pembrolizumab plus trastuzumab and chemotherapy is a step change in the treatment pathway. It also highlighted that, in blinded validation interviews with clinical experts, most experts thought that the company's preferred models for pembrolizumab plus trastuzumab and chemotherapy and for trastuzumab plus chemotherapy were more clinically plausible than EAG's base case.

- 3.8 The committee considered the hazard ratios for overall survival over time when using the company and the EAG's preferred survival curves (figure 4 of the EAG's critique of company's response to the draft guidance in the [committee papers](#)). The EAG noted that, with the company's preferred survival curves, there is an increasing relative survival benefit over time with pembrolizumab plus trastuzumab and chemotherapy compared with trastuzumab plus chemotherapy. It also noted a similar trend of increasing survival benefit over time when using the 1-knot hazard spline model (EAG's preferred survival curve) for pembrolizumab plus trastuzumab and chemotherapy and the Weibull model (company's preferred survival curve) for trastuzumab plus chemotherapy. The EAG considered that this was not clinically plausible because gastric or GOJ cancer has usually progressed after 4 years. When using the EAG's preferred survival curves, pembrolizumab plus trastuzumab and chemotherapy increases survival compared with trastuzumab with chemotherapy until about 10 years. But the size of the survival benefit for pembrolizumab plus trastuzumab and chemotherapy relative to trastuzumab plus chemotherapy decreases from about

3 years onwards. From about 10 years onwards, the EAG's base case model assumed that there was no difference in risk of death between the 2 treatments. The clinical experts explained that immunotherapies, such as pembrolizumab, act on the body's immune system. So immune memory may lead to an increasing long-term survival benefit for pembrolizumab compared with chemotherapy. They noted that clinical trial evidence from other immunotherapies for gastric or GOJ cancer have shown that the treatment benefit of immunotherapies versus chemotherapy increases over time. They also noted that chemotherapy becomes less effective over time. The committee considered that it is biologically plausible that pembrolizumab plus trastuzumab and chemotherapy may have an increasing survival benefit over time compared with trastuzumab plus chemotherapy. But the committee questioned the size of survival benefit with pembrolizumab plus trastuzumab and chemotherapy compared with trastuzumab and chemotherapy. It noted that there was an 86% higher chance of survival from 10 years onwards for the pembrolizumab plus trastuzumab and chemotherapy arm compared with the trastuzumab plus chemotherapy arm when using the company's preferred survival extrapolations. The committee considered that this survival benefit was very high and unlikely to be clinically plausible.

3.9 The committee noted that the choice of overall survival extrapolations has a large impact on the cost-effectiveness results. It recalled that the company's preferred extrapolation:

- predicts the highest survival benefit for pembrolizumab plus trastuzumab and chemotherapy compared with trastuzumab plus chemotherapy (see [section 3.7](#)) of all fitted parametric and spline models,
- does not fit the data from KEYNOTE-811 well for the trastuzumab plus chemotherapy arm (see section 3.7), and
- the size of survival benefit with pembrolizumab plus trastuzumab and chemotherapy compared with trastuzumab plus chemotherapy was very high and unlikely to be clinically plausible.

It considered that both the company's and the EAG's base case survival extrapolations were uncertain. Considering all the available evidence, the committee concluded that the long-term survival extrapolations using a 1-knot hazard spline model for the pembrolizumab plus trastuzumab and

chemotherapy arm and a 1-knot normal spline model for the trastuzumab plus chemotherapy arm, assuming no difference in survival between treatment arms at about 10 years, were appropriate for decision making.

Source of utility values

3.10 The company used EQ-5D-5L data collected directly from the non-Asia cohort with PD-L1 with a CPS of 1 or more from KEYNOTE-811 to estimate utility values. The utility values were mapped to the EQ-5D-3L value set using the mapping function developed by the Decision Support Unit. In its base case, the company included utility values based on a time-to-death approach with 4 categorical groups:

- less than 30 days from death
- 30 to 179 days from death
- 180 to 359 days from death
- 360 days or more from death.

The company also did a scenario using a progression-based approach. The EAG also used the time-to-death approach in its base case, but considered that there is considerable uncertainty related to using a time-to-death approach for applying utility values. The EAG highlighted that both the time-to-death and progression-based approach have limitations because the data collected has been heavily censored, either at the point of progression or at treatment discontinuation. It noted that a progression-based approach is more widely used and that clinical advice to the EAG suggested that progression and adverse events are the key drivers of utility in this disease area. The EAG also considered that the company's estimated utility values lack face validity for populations with advanced gastric or GOJ cancer. The utility values are considered confidential by the company so cannot be reported here. The committee noted that there is a lack of utility data in gastric or GOJ cancer. It also acknowledged that although the progression-based approach is more widely used, the time-to-death approach has also been previously used in NICE appraisals. The committee considered that

there was uncertainty about the most appropriate approach but noted that the choice of approach had a relatively small impact on the cost-effectiveness results. It concluded that it was appropriate to use the time-to-death approach in the analyses for decision-making. The company used descriptive statistics without adjustment for repeated measures to estimate utility values in its base case. The company explained that this means that people with multiple measurements contribute more to the estimate of the utility than those with a single measurement. It considered that this was appropriate because people who spend the longest in a health state should contribute more to the estimate of utility for that health state. The EAG preferred to use a linear mixed effect regression model with adjustment for repeated measures in its base case model. This is because this approach adjusts for repeated measures and for covariates which may be important confounders. The committee concluded that the linear mixed effects regression model, which accounts for repeated measures, is more appropriate than using a descriptive analysis. So, its preferred approach to utility values was a time-to-death approach using linear mixed effect regression modelling.

Time to treatment discontinuation of trastuzumab

- 3.11 The company used time-to-treatment discontinuation data from KEYNOTE-811 to inform treatment acquisition and administration costs for each treatment in the model. The company also applied a cap on the maximum treatment duration for each treatment. In its base case, the company applied a cap of 35 cycles to trastuzumab treatment. The EAG disagreed with this approach as there is no restriction on the duration of trastuzumab treatment in NICE's technology appraisal guidance on trastuzumab for the treatment of HER2-positive metastatic gastric cancer, other than for disease progression or unacceptable toxicity. Clinical advice to the EAG stated that, in clinical practice, trastuzumab treatment should continue until disease progression or unacceptable toxicity. So, the EAG removed this cap. The clinical experts at the appraisal committee meeting agreed that trastuzumab should be continued until disease progression. The committee concluded that it is appropriate to model trastuzumab treatment based on the time-to-treatment discontinuation curve from KEYNOTE-811 with no cap applied.

Trastuzumab administration cost

- 3.12 In its base case, the company applied a reference cost based on health resource group (HRG) code SB13Z (complex delivery) to trastuzumab whether given alone or with pembrolizumab after the completion of chemotherapy. The EAG considered that there should be some difference in administration costs for trastuzumab given alone (simple delivery, HRG code SB12Z) compared with trastuzumab given in combination with pembrolizumab (complex delivery, HRG code SB13Z). The NHS England Cancer Drugs Fund (CDF) clinical lead advised the NICE technical team that there is variation in the HRG codes used in clinical practice. They recommended that most NHS trusts would use different HRG codes for the administration of trastuzumab monotherapy after chemotherapy (HRG code SB12Z) and the administration of pembrolizumab with trastuzumab after chemotherapy (HRG code SB17Z). The EAG did an additional scenario analysis exploring the impact of using updated costs for trastuzumab administration provided by the NHS England CDF clinical lead. The committee noted the additional EAG scenario had little impact on the cost-effectiveness results. It considered that there was uncertainty in the HRG codes that would be used in clinical practice. The committee concluded that the scenario analysis with updated costs for trastuzumab administration provided by the NHS England CDF clinical lead is appropriate for decision-making.

PD-L1 testing

- 3.13 The company's model included PD-L1 testing costs in both the pembrolizumab plus trastuzumab and chemotherapy arm and the trastuzumab plus chemotherapy arm. This assumes that no additional testing costs will be incurred when determining the eligibility of pembrolizumab for locally advanced unresectable or metastatic HER2-positive gastric or GOJ cancer in adults whose tumours express PD-L1 with a CPS of 1 or more. The company considered that these people are already routinely tested for PD-L1 at the same time they are tested for HER2 to determine eligibility for nivolumab with platinum- and fluoropyrimidine-based chemotherapy, which is recommended by NICE (see [NICE technology appraisal guidance on nivolumab with platinum- and fluoropyrimidine-based chemotherapy for untreated HER2-negative advanced gastric, GOJ or oesophageal adenocarcinoma](#)). At the first committee meeting, the clinical

experts explained that there are regional variations in testing, and in some centres PD-L1 testing is not routinely carried out alongside HER2 testing. If pembrolizumab plus trastuzumab and chemotherapy was recommended, then PD-L1 testing strategies would change in clinical practice and HER2 and PD-L1 testing would be done at the same time. At consultation, the company did market research with 50 respondents across more than 27 UK centres and found that 92% did PD-L1 testing at the same time as HER2 testing. The company provided a scenario analysis which included PD-L1 testing costs in the pembrolizumab plus trastuzumab and chemotherapy arm only which had little impact on the cost-effectiveness estimate. At the second appraisal committee meeting, the NHS England CDF clinical lead argued that it is reasonable to include PD-L1 testing costs for HER2-positive gastric or GOJ cancer in this appraisal. The clinical experts highlighted that, although HER2 and PD-L1 tests are requested at the same time, these 2 different tests are done separately in a laboratory setting and would incur separate costs that should be reflected in the analysis. The committee concluded that PD-L1 testing costs should be included for the pembrolizumab plus trastuzumab and chemotherapy arm in the model.

Severity

- 3.14 The committee considered the severity of the condition (the future health lost by people living with the condition and having standard care in the NHS). The committee may apply a greater weight to QALYs (a severity modifier) if technologies are indicated for conditions with a high degree of severity. When using data from the non-Asia cohort with PD-L1 with a CPS of 1 or more, the company and the EAG agreed that it was appropriate to apply a severity weight of 1.2 to the QALYs. The committee concluded that a severity weight of 1.2 applied to the QALYs was appropriate.

Cost-effectiveness estimates

Acceptable ICER

- 3.15 NICE's manual on health technology evaluations notes that, above a most

plausible ICER of £20,000 per QALY gained, judgements about the acceptability of a technology as an effective use of NHS resources will take into account the degree of certainty around the ICER. The committee will be more cautious about recommending a technology if it is less certain about the ICERs presented. But it will also take into account other aspects including uncaptured health benefits. The committee noted the high level of uncertainty associated with the long-term survival estimates for both pembrolizumab plus trastuzumab and chemotherapy and trastuzumab plus chemotherapy. So, the committee concluded that an acceptable ICER would be around the middle of the range that NICE considers a cost-effective use of NHS resources (£20,000 to £30,000 per QALY gained).

Company and EAG cost-effectiveness estimates

3.16 The cost-effectiveness estimates used by the committee for decision making took into account all of the available confidential discounts, including those for comparators and follow up treatments. These estimates are confidential and cannot be reported here. The company and the EAG's base case results for pembrolizumab plus trastuzumab and chemotherapy compared with trastuzumab plus chemotherapy were above the range normally considered a cost-effective use of NHS resources.

The committee's preferences

3.17 The committee's preferred assumptions were:

- data from the non-Asia cohort (see [section 3.5](#))
- long-term survival extrapolations using a 1-knot hazard spline model for the pembrolizumab plus trastuzumab and chemotherapy arm and a 1-knot normal spline model for the trastuzumab plus chemotherapy arm, and no difference in survival between the treatment arms at about 10 years (see [section 3.9](#))
- utility values from time-to-death approach using linear mixed effect regression modelling (see [section 3.10](#))
- PD-L1 testing costs for pembrolizumab plus trastuzumab and chemotherapy

arm only (see [section 3.13](#))

- treatment with trastuzumab modelled based on the time-to-treatment discontinuation curve from KEYNOTE-811, with no cap applied (see [section 3.11](#))
- costs for trastuzumab administration in line with EAG's scenario analysis (see [section 3.12](#))
- severity weighting of 1.2 applied to the QALYs (see [section 3.14](#)).

When taking into account the committee's preferred assumptions, the cost-effectiveness estimate is not within the range that NICE usually considers an acceptable use of NHS resources.

Other factors

Equality

- 3.18 The patient experts stated that people from the most deprived areas and younger people are more likely to be diagnosed with gastric or GOJ cancer at more advanced stages. They noted that people from an East Asian family background have a higher risk of developing gastric or GOJ cancer. They also noted potential language barriers in sharing information with hard-to-reach community groups. The committee noted that the analyses for decision-making were based on the non-Asia cohort of KEYNOTE-811 (see [section 3.5](#)). The committee heard that outcomes are better for people in East Asia compared with the rest of the world because of differences in clinical practice in these regions, rather than biological differences based on family background. So, the committee considered that excluding data from people treated in Asia would not affect the generalisability of the evidence to people of an Asian family background who are receiving treatment in the NHS. The committee discussed equality issues, and agreed that its recommendations do not have a different impact on people protected by the equality legislation than on the wider population. The committee considered that there were no equality issues that could be addressed by its recommendations.

Innovation

- 3.19 The committee did not identify any additional benefits of pembrolizumab plus trastuzumab and chemotherapy not captured in the economic modelling.

Conclusion

Recommendation

- 3.20 Clinical effectiveness evidence shows that pembrolizumab plus trastuzumab and chemotherapy improves overall survival in people with untreated locally advanced unresectable or metastatic HER2-positive gastric or GOJ cancer in adults whose tumours express PD-L1 with a CPS of 1 or more. But the long-term survival extrapolations for pembrolizumab plus trastuzumab and chemotherapy, and for trastuzumab plus chemotherapy, are very uncertain. The committee concluded that the ICER that incorporates its preferred assumptions is not within the range that NICE considers a cost-effective use of NHS resources. So, pembrolizumab plus trastuzumab and chemotherapy is not recommended.

4 Evaluation committee members and NICE project team

Evaluation committee members

The 4 technology appraisal committees are standing advisory committees of NICE. This topic was considered by [committee A](#).

Committee members are asked to declare any interests in the technology being evaluated. If it is considered there is a conflict of interest, the member is excluded from participating further in that evaluation.

The minutes of each evaluation committee meeting, which include the names of the members who attended and their declarations of interests, are posted on the NICE website.

Chair

Radha Todd

Chair, technology appraisal committee A

NICE project team

Each evaluation is assigned to a team consisting of 1 or more health technology analysts (who act as technical leads for the evaluation), a technical adviser and a project manager.

Zain Hussain

Technical lead

Lizzie Walker

Technical adviser

Leena Issa and Jeremy Powell

Project managers

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