NICE National Institute for Health and Care Excellence

NICE guidance

Selpercatinib for previously treated RET fusion-positive advanced non-small-cell lung cancer

Technology appraisal guidance
Published: 19 February 2025

www.nice.org.uk/guidance/ta1042

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.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the Yellow Card Scheme.

Commissioners and/or providers have a responsibility to provide the funding required to enable the guidance to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Contents

This guidance replaces TA760.

1 Recommendations

1.1 Selpercatinib is recommended as an option for treating RET fusion-positive advanced non-small-cell lung cancer (NSCLC) that has not been treated with a RET inhibitor in adults, only if:

- it has been treated before and
- the company provides selpercatinib according to the commercial arrangement.

1.2 This recommendation is not intended to affect treatment with selpercatinib 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 healthcare professional consider it appropriate to stop.

Why the committee made these recommendations

This evaluation reviews the evidence for selpercatinib for RET fusion-positive advanced NSCLC that has been treated but not with a RET inhibitor (NICE technology appraisal guidance 760). This does not include everyone who selpercatinib is licensed for. This evaluation also reviews new data collected as part of the managed access agreement. The new evidence includes data from clinical trials and from people having treatment in the NHS in England.

Usual treatment for previously treated, RET fusion-positive advanced NSCLC is docetaxel (a chemotherapy drug). Some people have docetaxel plus nintedanib (a targeted cancer drug). Selpercatinib is a RET inhibitor (a drug that targets RET fusion-positive cancer).

There are no clinical trials directly comparing selpercatinib with docetaxel or docetaxel plus nintedanib. But indirect comparisons with these treatments suggest selpercatinib may increase how long people have before their condition gets worse and how long they live

for.

When considering the condition's severity, and its effect on quality and length of life, the most likely cost-effectiveness estimates are within what NICE considers an acceptable use of NHS resources. So, selpercatinib is recommended.

2 Information about selpercatinib

Marketing authorisation indication

2.1 Selpercatinib (Retsevmo, Eli Lilly) as monotherapy is indicated for 'the treatment of adults with advanced RET fusion-positive non-small cell lung cancer (NSCLC) not previously treated with a RET inhibitor'.

Dosage in the marketing authorisation

2.2 The dosage schedule is available in the summary of product characteristics for selpercatinib.

Price

2.3 The list price for selpercatinib is £2,184 per pack of 56 x 40 mg capsules; £6,552 per pack of 168 x 40 mg capsules; £4,368 per pack of 56 x 80 mg capsules and £8,736 per pack of 112 x 80 mg capsules (excluding VAT; BNF online, accessed September 2024).

2.4 The company has a commercial arrangement. This makes selpercatinib available to the NHS with a discount. The size of the discount is commercial in confidence.

3 Committee discussion

The evaluation committee considered evidence submitted by Eli Lilly, 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

Patient perspectives

3.1 About 85% to 90% of lung cancer cases are non-small-cell lung cancer (NSCLC). There are 2 main types of NSCLC, squamous (about 30% of cases) and non-squamous (about 70% of cases). RET fusion-positive tumours occur in 1 to 2% of NSCLC cases and are rare in squamous NSCLC. RET fusion-positive NSCLC is more common in women, younger people and people who do not smoke. A patient submission received as part of the original evaluation (NICE technology appraisal guidance TA760) agreed that people with RET alterations tend to be younger and more likely to smoke lightly or not at all compared with the general lung-cancer population. For this reason, people with RET fusion-positive NSCLC may be diagnosed later because they have characteristics that are not typical of people with NSCLC. The patient experts for TA760 described how symptoms such as breathlessness, cough and weight loss are difficult to treat without active anticancer therapy. They explained that these symptoms can be distressing, and emphasised that identifying new targets and treatments for NSCLC is needed. They noted that selpercatinib is the first therapy available that specifically targets RET fusion-positive lung cancer. They noted that selpercatinib is available as an oral preparation, which is advantageous over intravenous treatments that are delivered in hospital. The committee concluded that people with previously treated RET fusion-positive NSCLC would welcome the introduction of selpercatinib into routine commissioning.

Clinical expert perspectives

3.2 People with RET fusion-positive NSCLC currently have access to selpercatinib through the Cancer Drugs Fund for first-line use (NICE technology appraisal guidance 911) or after platinum-based chemotherapy with or without immunotherapy (TA760). The clinical expert regarded selpercatinib to be an excellent option for first-line therapy but noted that up to 30% of people may not have molecular testing results available when they need to start treatment. They explained that for some people, there is not enough biopsy material available to complete a full panel of tests and the person may not be well enough to have a second or third biopsy. These people may start a non-targeted, chemotherapy-based treatment rather than targeted treatment with selpercatinib. The clinical expert emphasised the importance of having selpercatinib available as the next line of treatment for people with RET fusion-positive NSCLC. They explained that if this option were not available, it would be of substantial detriment to a small number of people who could not have targeted first-line treatment because of unknown RET status. The Cancer Drugs Fund clinical lead agreed that some people need to start treatment before the RET status has been assessed. But this is becoming less common because molecular testing in the NHS is becoming more routine. Even when people are tested at the time of diagnosis, some may not be able to wait up to 3 weeks for test results and start a non-targeted treatment straight away. The Cancer Drugs Fund clinical lead provided information on the number of people who had selpercatinib through the Cancer Drugs Fund in the past year. About 30 people had selpercatinib, with about 10 of these having selpercatinib after other treatments. The Cancer Drugs Fund clinical lead noted that, compared with the thousands of people diagnosed with NSCLC each year, the number of people having selpercatinib was small. The committee noted that people would only have selpercatinib after other treatments if they had not had it at first line in the Cancer Drugs Fund. It anticipated that as testing becomes more efficient, the number of people having selpercatinib at second line should reduce but not disappear. But it understood that selpercatinib is not currently available for first-line use in routine commissioning, so first-line availability is not guaranteed long term. The committee concluded that it is likely that only a small number of people with RET fusion-positive NSCLC will have selpercatinib at second line, as reflected by the small numbers of people having selpercatinib at second line in the NHS.

Clinical management

Comparators

3.3 Comparators in the final NICE scope included docetaxel alone, docetaxel with nintedanib, platinum-based chemotherapy (such as pemetrexed plus carboplatin, pemetrexed plus cisplatin, or platinum doublet therapy) or immunotherapy (such as pembrolizumab, nivolumab or atezolizumab). The company submission compared selpercatinib with docetaxel alone and docetaxel plus nintedanib. The company decided that immunotherapies were not relevant comparators for previously treated NSCLC because patients would be expected to have these at first line, so would not have them again at second line. The company also decided that pemetrexed plus carboplatin and platinum doublet chemotherapy were not relevant comparators at second line, because they are rarely used at this point in the treatment pathway. The company noted that the comparators included in its analysis aligned with clinical expert feedback and the committee's conclusions in TA760. Selpercatinib is only available in the Cancer Drugs Fund and not considered part of routine commissioning for first-line treatment of RET fusion-positive NSCLC (see section 3.2). So, immunotherapy alone or in combination with platinum-based chemotherapy is the most common first-line treatment option (for approximately 75% of patients). The EAG noted this was validated in the Systemic Anti-Cancer Therapy (SACT) dataset. So, it agreed with the company's choice of comparators. The committee agreed with the conclusion in TA760 that docetaxel and docetaxel with nintedanib are appropriate comparators for people with previously treated RET fusion-positive advanced NSCLC.

Clinical effectiveness

Selpercatinib data sources

3.4 The clinical evidence for selpercatinib came from the LIBRETTO-001 trial. This is an open-label, single-arm, multicentre, phase 1 and 2 trial in people with advanced solid tumours with RET alterations. The primary outcome of the phase 2 part of the trial was objective response rate. Key secondary outcomes in this part of the trial included progression-free survival, overall survival and

health-related quality of life. The subgroup of LIBRETTO-001 relevant to this evaluation is the previously-treated NSCLC group, referred to by the company as the integrated analysis set. At the time of the original evaluation for TA760, the committee concluded that data from the 16 December 2019 data cut of LIBRETTO-001 was immature. The committee noted that further data collection from LIBRETTO-001 may reduce uncertainty. For the current evaluation, the company presented data from the latest data cut (13 January 2023) of LIBRETTO-001. This included a larger sample (n=247) with a longer follow-up period. In the latest data cut, objective response rate was 61.5% (95% confidence interval [CI] 55.2 to 67.6) at a median follow-up of 39.5 months. Progression-free survival was 26.15 months (95% CI 19.3 to 35.7) at a median follow-up of 41.20 months. Overall survival was 47.57 months (95% CI 35.9 to not estimable) at a median follow-up of 44.55 months. The outcomes reported in the latest data cut off were similar to those used to inform the original evaluation (TA760). During the managed access data collection period, data was also collected using the SACT dataset for people with previously treated RET fusion-positive advanced NSCLC having selpercatinib in the NHS (n=24). But the company noted that selpercatinib has only been available through the Cancer Drugs Fund in this indication since 2022. So, the company decided that the SACT dataset was not mature enough to inform the submission. The committee agreed the SACT data were too immature to review and agreed that using the latest data from LIBRETTO-001 as the sole source of clinical evidence in the analysis was appropriate.

Comparator data sources and indirect comparison

3.5 The clinical evidence for the comparators came from the REVEL and LUME\u2011\Lung 1 trials. REVEL (n=1,253) was a randomised double-blind, placebo-controlled, multicentre, phase 3 trial in stage 4 NSCLC that had been previously treated with platinum-based chemotherapy. It compared ramucirumab plus docetaxel (n=628) with placebo plus docetaxel (n=625). Median follow-up was 8.8 months. LUME-Lung 1 was a randomised, double-blind, placebo-controlled, multicentre phase 3 trial for stage 3b or 4 recurrent NSCLC after 1 previous chemotherapy. It compared docetaxel plus nintedanib (n=655) with placebo plus docetaxel (n=659). Median follow-up was 31.7 months. The adenoma subgroups of the trials were used to inform the evaluation. Because there are no trials

directly comparing selpercatinib with the comparators for RET fusion-positive advanced NSCLC, indirect treatment comparisons were needed to establish relative efficacy. In line with the methods used in TA760, the company generated a pseudo-control docetaxel arm using propensity score matching based on individual-patient data from REVEL (section 3.6). The company then used network meta-analyses (NMA) to compare the efficacy of selpercatinib with docetaxel and with docetaxel plus nintedanib (section 3.7). Selpercatinib was connected to the network using the pseudo-control docetaxel arm to allow LIBRETTO-001 data to be compared with the other trials in the NMA. For this evaluation, the EAG requested that the company do unanchored matching-adjusted indirect comparisons (MAICs) using LIBRETTO-001 and LUME-Lung 1 data to explore the robustness of the NMA (section 3.8). The company provided this as part of the clarification response. All analyses used updated data from the latest data cut of LIBRETTO-001.

Pseudo-control docetaxel arm propensity score matching

3.6 Results of the company's propensity score matching analysis suggested statistically significant treatment effects for selpercatinib compared with pseudo-control docetaxel for objective response rate, progression-free survival and overall survival. These are considered confidential by the company and cannot be reported here. Similarly to TA760, the EAG noted many limitations with the company's analysis. These included imbalances after matching in the proportion of people who were women, had never smoked, or were Asian, and in the median time since diagnosis. The committee discussed the characteristics used in the propensity score matching:

- RET fusion mutation status. The company did not account for this in the propensity score matching because it considered that the prognostic nature of a RET fusion is inconclusive. The EAG noted that REVEL did not specifically recruit people with RET fusion-positive cancer and that RET fusions occur in only 1% to 2% of the non-squamous NSCLC population, so it would not have been possible to match for this. The EAG acknowledged that the prognostic effect of RET fusion mutation status is unknown. The clinical expert advised there is no evidence RET status has a prognostic effect separate from other prognostic factors more common in RET fusion-positive cancer

- number of previous treatment lines. The company was unable to match for this because nearly everyone in REVEL had only 1 previous line of treatment. In LIBRETTO-001 some people had 2 or more previous lines of treatment. The EAG noted that this was an important prognostic factor. The clinical expert explained that the lower number of previous treatments in REVEL compared with LIBRETTO-001 biased against selpercatinib because people who have had fewer previous treatments are generally fitter and have better outcomes

- central nervous system metastases. The company did not match for this because it considered that matching for stage 4 disease would have accounted for the differences between trials. The clinical expert advised that the higher proportion of people with central nervous system metastases in LIBRETTO-001 was likely to bias against selpercatinib because matching for stage 4 disease would not fully account for this difference.

  The committee acknowledged that the methods used to generate the pseudo-control arm were the same as those used in TA760 and the company had provided an updated analysis using the latest data from LIBRETTO-001. The committee also acknowledged the substantial remaining uncertainty. But it concluded that, in the absence of any other data, the pseudo-control arm was an acceptable method for generating comparative evidence for selpercatinib.

Network meta-analysis

3.7 The company used the pseudo-control docetaxel arm to link selpercatinib to the network in the NMA. The company's NMA results suggested statistically significant treatment effects for selpercatinib compared with docetaxel, and docetaxel plus nintedanib. Estimated treatment effects from the NMA are considered confidential by the company and cannot be reported here. The EAG noted that the limitations of the propensity score matching analysis to generate the pseudo-control arm could also bias the NMAs. Other concerns included:

- all comparator trials in the NMA included people with unknown RET status

- follow-up time and number of previous treatments varied across trials

- baseline characteristics were not provided by the company for all trials
- the NMAs included many irrelevant comparators, which may increase heterogeneity
- data from REVEL was included in the NMAs twice owing to the pseudo-control arm
- the proportional hazards assumption may not hold for some trials
- it was not possible to thoroughly explore heterogeneity.

The committee noted that the indirect comparison was a large source of uncertainty in the company's analysis. This was partly because of the need to connect selpercatinib to the network with the pseudo-control docetaxel arm and the limitations associated with this (section 3.6). The committee agreed that because the company had used the same methods as in TA760 many of the original uncertainties, limitations and concerns would still apply. The committee concluded that the uncertainty relating to the NMA could not have been resolved during the period of managed access and high uncertainty remains.

Unanchored matching-adjusted indirect comparison

3.8 For this evaluation, the company did unanchored MAICs using LIBRETTO-001 and LUME-Lung 1 data to explore the robustness of the original NMA approach. But the company used the efficacy estimates from the NMAs (section 3.7) in the base case for its economic modelling because it decided these were more conservative and more methodologically appropriate than estimates from the unanchored MAICs. For the unanchored MAIC, the LIBRETTO-001 population was re-weighted to match the LUME-Lung 1 population in terms of prognostic factors and treatment-effect modifiers including sex, age, smoking history, Eastern Cooperative Oncology Group performance status and presence of brain metastases. The results of the unanchored MAICs are considered confidential by the company and cannot be reported here. The EAG explained that the advantages of the unanchored MAIC are that it uses a smaller network of trials than the NMA, which is likely to reduce heterogeneity. It also avoided people in

the docetaxel arm of REVEL being included twice. But the limitations of the unanchored MAICs included:

- information about potentially important baseline characteristics such as ethnicity or time from diagnosis was not provided
- it was not possible to adjust for RET fusion status or number of previous lines of treatment
- imbalances in unreported characteristics may have resulted in residual bias
- the proportional hazards assumption may not hold for the overall-survival analysis compared with docetaxel.

The committee noted that the unanchored MAICs required strong assumptions that all effect modifiers and prognostic factors were accounted for in the analysis. The committee concluded that the unanchored MAICs provided results consistent with the NMA for overall survival and progression-free survival, if slightly more favourable for selpercatinib. The committee noted that both approaches were subject to similar limitations and therefore highly uncertain. But it agreed that the NMA approach maintained using randomised data (in the context of having a pseudo-control arm) and required fewer assumptions around unmeasured confounders than the MAICs. It also acknowledged that the NMA provided more conservative estimates of overall survival and progression-free survival. So, it agreed it was appropriate to use the NMA to inform the economic model.

Economic model

Company's modelling approach

3.9 The company developed a partitioned survival model with 3 health states: progression-free, progressed and death. The proportion of patients in each health state at each model cycle was determined using progression-free survival and overall survival curves. The model used a lifetime time horizon of 25 years and a cycle length of 1 week with no half-cycle correction applied. The perspective was that of the NHS and Personal Social Services. An annual

discount rate of 3.5% was used for costs and benefits. The company's model structure was the same as that used in TA760 and was aligned with the TA760 committee's preferred assumptions. The committee concluded that the company's model structure was suitable for decision making.

Overall and progression-free survival extrapolations

3.10 The company used the latest data cut of LIBRETTO-001 to update the economic model. To model overall survival for selpercatinib and docetaxel, the company propensity score matched REVEL data with LIBRETTO-001 and fit an exponential model with treatment as a covariate. To model progression-free survival, the company used independent extrapolations. A loglogistic model was applied to LIBRETTO-001 selpercatinib data and a 3-knot spline model was applied to docetaxel pseudo-control arm data. For overall and progression-free survival for nintedanib plus docetaxel, the company used the hazard ratios from the NMAs and applied them to the docetaxel overall survival and progression-free survival estimates. The EAG disagreed with the company's approach to modelling progression-free survival because the company had chosen to use separate distributions for selpercatinib and docetaxel. The EAG advised that if the proportional hazards or accelerated failure time assumption is assumed to hold, then curves based on the same parametric model should be used. The EAG preferred to model progression-free survival as a combined data set with docetaxel as a reference arm and selpercatinib as a covariate. It preferred the spline 1-knot curve for progression-free survival because this had a better visual fit to the selpercatinib Kaplan–Meier data. The EAG advised that the key limitation with both its own and the company's approaches to survival modelling was a lack of flexibility in the structural relationship between selpercatinib and the comparators. Using the pseudo-control docetaxel data with a hazard ratio or acceleration factor applied to generate estimates for selpercatinib meant it was not possible to explore how the relative effectiveness changed over time. The committee acknowledged the EAG's concerns about the model's inflexibilities. It considered that the proportional hazards assumption is a very strong assumption, especially given different mechanisms of action of selpercatinib and the comparators and the short follow up in REVEL. The committee would have liked to have seen more scenario analyses using an approach that increased the degrees of freedom. This could have allowed it to more thoroughly explore the

uncertainty and to assess the impact on the ICER when assuming the proportional hazards or accelerated failure time assumption does not hold. The committee concluded that there was still likely to be uncertainty in the long-term overall survival and progression-free survival extrapolations that had not been fully explored. But it accepted the company's and EAG's approach to modelling overall survival. The committee accepted the EAG's spline 1-knot curve for modelling progression-free survival. It concluded that this provided a better fit to the Kaplan–Meier data and gave more clinically plausible long-term projections.

Time on selpercatinib treatment

3.11 The company used time to treatment discontinuation data from LIBRETTO-001 to estimate selpercatinib treatment costs. The EAG cautioned that the company's approach may overestimate selpercatinib costs because it predicted that a proportion of people would still be on treatment at 10 years. Clinical advice to the EAG was that some clinicians may discuss stopping selpercatinib after an extended period of no progression. They added that it is also common for treatment to continue for a further 3 months after progression, until progression can be confirmed by CT scan. The EAG noted that a large proportion of people in LIBRETTO-001 continued having selpercatinib beyond progression and the mean time on treatment after progression was longer than 3 months. The clinical expert explained that the number of people who would still be having selpercatinib after 10 years is very uncertain because there is currently only about 4 years of follow-up data from LIBRETTO-001. But it is likely to be a very small number of people. The clinical expert advised they would not be comfortable stopping treatment for people who were still benefiting from it. They explained that selpercatinib is not a cure and keeping the advanced NSCLC under control will involve continuing treatment. The committee agreed that in clinical practice people would likely continue having selpercatinib for as long as they continue to benefit.

Selpercatinib starting dose

3.12 The company and EAG used different approaches to estimate the distribution of patients across different starting doses of selpercatinib in the model. During the committee meeting, the company noted that the EAG's approach was based on

the phase 1 dose escalation part of LIBRETTO-001. But the company's approach was based on the phase 2 data from LIBRETTO-001, in line with the efficacy data used in the model. The committee noted this only had a very small impact on the cost-effectiveness results but agreed that the company's approach based on phase 2 data from LIBRETTO-001 was more appropriate to inform the starting-dose distribution for selpercatinib.

Severity

3.13 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 (a severity modifier) to quality-adjusted life years (QALYs) if technologies are indicated for conditions with a high degree of severity. The company provided absolute and proportional QALY shortfall estimates. In the company's base case, proportional QALY shortfall was 0.929 for docetaxel and 0.914 for docetaxel with nintedanib. In line with NICE's health technology evaluations manual, the calculated proportional QALY shortfalls resulted in a QALY weight of 1.2. The calculations of proportional QALY shortfall in the EAG's base case also resulted in a 1.2 QALY weighting. The company stated that a QALY weight of 1.7 should apply because of the considerable unmet need in the population with previously treated RET fusion-positive advanced NSCLC. It also noted that the end-of-life criteria were met in TA760 resulting in a willingness-to-pay threshold equivalent to applying a QALY weight of 1.7. The committee noted that since the publication of the original guidance for TA760, NICE's health technology evaluation manual has been updated and QALY weighting should now be based on absolute and proportional QALY shortfall rather than end-of-life criteria. It concluded that the severity weight of 1.2 applied to the QALYs was appropriate.

Cost-effectiveness estimates

The committee's preferred assumptions

3.14 The committee's preferred modelling assumptions included:

- using the pseudo-control docetaxel arm and NMA to estimate relative effectiveness (see sections 3.6 and 3.7)
- modelling progression-free survival using a spline 1-knot model for all treatments and modelling overall survival using an exponential model for all treatments (section 3.10)
- estimating selpercatinib costs using time to treatment discontinuation data from LIBRETTO-001 without capping or adjustment (section 3.11)
- using the company's approach based on phase 2 LIBRETTO-001 data to determine the selpercatinib starting-dose distribution (section 3.12)
- applying a severity modifier of 1.2 (section 3.13).

Acceptable incremental cost-effectiveness ratio

3.15 NICE's manual on health technology evaluations notes that, above a most plausible incremental cost-effectiveness ratio (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. The committee noted the high level of uncertainty resulting from the indirect comparison of selpercatinib with docetaxel alone and docetaxel plus nintedanib (see sections 3.6 to 3.8). But it acknowledged that RET fusion-positive advanced NSCLC is rare. It noted that few people will have targeted treatment at second line, as demonstrated by the small number of people who had selpercatinib treatment in the NHS in the last year (see section 3.2). So, the committee acknowledged that generating evidence for this condition is difficult. It noted that NICE's health technology evaluations manual specifies that a higher degree of uncertainty can be accepted when evidence generation is difficult, such as in rare diseases. So, the committee concluded that an acceptable ICER would be around the middle of the range NICE considers a cost-effective use of NHS resources (£20,000 to £30,000 per QALY gained).

ICERs

3.16 The ICERs include confidential discounts for other treatments in the pathway so cannot be reported here. With the committee's preferred assumptions applied (see section 3.14), the ICER was below the committee's acceptable threshold (see section 3.15).

Other factors

Equality

3.17 The committee did not identify any equality issues.

Uncaptured benefits

3.18 The company noted potentially uncaptured benefits for selpercatinib in its submission. It noted that, if recommended, selpercatinib would continue to be the only RET inhibitor available for previously treated RET fusion-positive advanced NSCLC. It added that people with this condition experience anxiety and depression because of the diagnosis, the effects of treatment and the predicted course of the disease. The company also noted the tolerable side-effect profile of selpercatinib and the convenient oral method of administration. The committee acknowledged these benefits of selpercatinib but decided these were already captured in the economic modelling. So, the committee concluded that all additional benefits of selpercatinib had already been taken into account.

Conclusion

Recommendation

3.19 The clinical-effectiveness data for selpercatinib came from LIBRETTO-001. The latest data from LIBRETTO-001 showed that the response rates and survival

estimates had been maintained during the period of managed access. The committee noted uncertainty about the company's indirect comparison results. But with the committee's preferred assumptions applied, the ICER was below the acceptable cost-effectiveness threshold. So, selpercatinib is recommended.

4 Implementation

4.1 Section 7 of the National Institute for Health and Care Excellence (Constitution and Functions) and the Health and Social Care Information Centre (Functions) Regulations 2013 requires integrated care boards, NHS England and, with respect to their public health functions, local authorities to comply with the recommendations in this evaluation within 3 months of its date of publication.

4.2 Chapter 2 of Appraisal and funding of cancer drugs from July 2016 (including the new Cancer Drugs Fund) – A new deal for patients, taxpayers and industry states that for those drugs with a draft recommendation for routine commissioning, interim funding will be available (from the overall Cancer Drugs Fund budget) from the point of marketing authorisation, or from release of positive draft guidance, whichever is later. Interim funding will end 90 days after positive final guidance is published (or 30 days in the case of drugs with an Early Access to Medicines Scheme designation or cost comparison evaluation), at which point funding will switch to routine commissioning budgets. The NHS England Cancer Drugs Fund list provides up-to-date information on all cancer treatments recommended by NICE since 2016. This includes whether they have received a marketing authorisation and been launched in the UK.

4.3 The Welsh ministers have issued directions to the NHS in Wales on implementing NICE technology appraisal guidance. When a NICE technology appraisal guidance recommends the use of a drug or treatment, or other technology, the NHS in Wales must usually provide funding and resources for it within 2 months of the first publication of the final draft guidance.

4.4 When NICE recommends a treatment 'as an option', the NHS must make sure it is available within the period set out in the paragraphs above. This means that, if a patient has previously treated RET fusion-positive advanced NSCLC and the healthcare professional responsible for their care thinks that selpercatinib is the right treatment, it should be available for use, in line with NICE's recommendations.

5 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 D.

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

Megan John
Chair, technology appraisal committee D

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, a project manager and an associate director.

Anna Willis
Technical lead

Albany Chandler
Technical adviser

Kate Moore

Project manager

Emily Crowe
Associate director

ISBN: 978-1-4731-6852-7