NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Final appraisal determination

Elbasvir-grazoprevir for treating chronic hepatitis C

1 Recommendations

1.1 Elbasvir-grazoprevir is recommended, within its marketing authorisation, as an option for treating genotype 1 or 4 chronic hepatitis C in adults, as specified in table 1, only if the company provides the drug at the same price or lower than that agreed with the Commercial Medicines Unit.

Table 1 Elbasvir-grazoprevir for treating chronic hepatitis C in adults

Genotype	Treatment and duration
	Elbasvir-grazoprevir for 12 weeks
1a	Consider elbasvir-grazoprevir plus ribavirin for 16 weeks in people with a baseline hepatitis C virus RNA level of more than 800,000 IU/ml or specific NS5A polymorphisms causing at least a 5-fold reduction in activity of elbasvir.
1b	Elbasvir-grazoprevir for 12 weeks
	Elbasvir-grazoprevir for 12 weeks
4	Consider elbasvir-grazoprevir plus ribavirin for 16 weeks in people with a baseline hepatitis C virus RNA level of more than 800,000 IU/ml.

1.2 It is recommended that the decision to treat and prescribing decisions are made by multidisciplinary teams in the operational delivery networks put in place by NHS England, to prioritise treatment for people with the highest unmet clinical need.

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2 The technology

Description of the technology	Elbasvir-grazoprevir (Zepatier, Merck Sharp & Dohme) is a fixed-dose combination drug. Elbasvir inhibits hepatitis C virus (HCV) non-structural viral protein NS5A and grazoprevir inhibits HCV NS3/4A protease.
Marketing authorisation	Elbasvir-grazoprevir has a marketing authorisation in the UK for treating chronic hepatitis C in adults.
	The recommendations in the marketing authorisation for the specific genotypes are listed below:
	genotype 1a: 12 weeks (16 weeks plus ribavirin should be considered in patients with baseline HCV RNA level >800,000 IU/ml or the presence of specific NS5A polymorphisms causing at least a 5-fold reduction in activity of elbasvir to minimise the risk of treatment failure)
	genotype 1b: 12 weeks
	 genotype 4: 12 weeks (16 weeks plus ribavirin should be considered in patients with baseline HCV RNA level >800,000 IU/ml to minimise the risk of treatment failure).
Adverse reactions	The summary of product characteristics includes headache and fatigue as very common adverse reactions, and nausea as a common reaction. For full details of adverse reactions and contraindications, see the summary of product characteristics.
Recommended dose and schedule	It is taken orally. The recommended dose of elbasvir-grazoprevir is 1 tablet once daily. Each tablet contains 50 mg elbasvir and 100 mg grazoprevir.
Price	Elbasvir-grazoprevir costs £12,166.67 per 28-day pack. The total cost of a 12-week treatment course is £36,500.
	The company has agreed a nationally available price reduction for elbasvir-grazoprevir with the Commercial Medicines Unit. The contract prices agreed through the framework are commercial in confidence.

3 Evidence

The appraisal committee (<u>section 7</u>) considered evidence submitted by Merck Sharp & Dohme and a review of this submission by the evidence review group (ERG). See the <u>committee papers</u> for full details of the evidence.

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4 Committee discussion

The appraisal committee reviewed the data available on the clinical and cost effectiveness of elbasvir-grazoprevir, having considered evidence on the nature of chronic hepatitis C and the value placed on the benefits of elbasvir-grazoprevir by people with the condition, those who represent them, and clinical experts. It also took into account the effective use of NHS resources.

Clinical need and practice

4.1 The committee heard from the clinical and patient experts that people who have chronic hepatitis C are a disadvantaged population and often have to cope with stigma and discrimination because people associate hepatitis C with drug use. The clinical experts stated that because of the introduction of the newer direct-acting antivirals, treatment with peginterferon alpha plus ribavirin is gradually diminishing in clinical practice, particularly for genotypes 1 and 4. However, they highlighted that some of these newer treatments are given in combination with peginterferon alpha or ribavirin. The committee heard from the patient experts that having treatment options that are free from peginterferon alpha with or without ribavirin is important to people with chronic hepatitis C because of the associated adverse reactions. The clinical experts stated that people with renal disease are an important group whose condition is difficult to treat because there are few treatment regimens without ribavirin, especially for people who also have compensated cirrhosis. The committee heard that elbasvir-grazoprevir does not have to be used with ribavirin, an important advantage for improved tolerability in people with renal disease. The committee also heard that elbasvir-grazoprevir provided another alternative to the existing oral treatment combinations for people with genotype 1 and 4 hepatitis C virus (HCV). Therefore the committee recognised the importance of having an additional effective and tolerable treatment for people with

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chronic hepatitis C and concluded that elbasvir-grazoprevir could be a valuable option for genotype 1 and 4 HCV.

4.2 The committee discussed the relevant comparators for elbasvir-grazoprevir given the changes in managing chronic hepatitis C. It noted that the company did not include boceprevir and telaprevir as comparators because they are no longer used in clinical practice, although the NICE scope included them. The committee also noted that the company included peginterferon alpha plus ribavirin as a comparator alongside the newer treatments, although it has been less commonly used since new direct-acting antivirals were introduced. The committee questioned whether it was appropriate to keep peginterferon alpha plus ribavirin as a comparator, given the argument for excluding boceprevir and telaprevir. It heard from a clinical expert that peginterferon alpha plus ribavirin is associated with toxicities and these were worsened by adding other toxic treatments, such as boceprevir or telaprevir, which is why boceprevir and telaprevir are no longer used. The clinical expert stated that although treatment with peginterferon plus ribavirin for genotype 1 and 4 HCV is rapidly diminishing, its use in clinical practice has not completely stopped. The clinical experts confirmed that the new directacting antivirals would be the most relevant comparators for elbasvir-grazoprevir. The committee accepted the views of the clinical experts and concluded that the most relevant comparators are the new direct-acting antivirals and acknowledged that peginterferon alpha plus ribavirin may be used for a small number of people.

Clinical effectiveness

4.3 The committee considered the clinical evidence for elbasvir-grazoprevir, which came from 8 clinical trials. It noted that 4 of these trials had a comparator arm (3 placebo-controlled trials and 1 active-controlled trial with sofosbuvir plus peginterferon alpha plus ribavirin), but the rest did not. The committee was aware that the evidence review group (ERG) agreed with the company's assessment that the risk of bias in the trials

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was generally low. The committee noted that the results of the clinical trials showed high sustained virological response (SVR) at 12 weeks for elbasvir-grazoprevir; ranging from 67% (for genotype 4 in some of the trials) to over 90% in most of the trials and up to 100% in some cases, irrespective of genotype, cirrhosis stage or treatment experience. The committee also noted that the SVR rates for elbasvir-grazoprevir and sofosbuvir plus peginterferon alpha plus ribavirin were comparable in people with genotype 1a HCV, but higher for elbasvir-grazoprevir than sofosbuvir plus peginterferon alpha plus ribavirin in genotype 1b HCV. Having noted the high SVR rates as well as the ERG and the company's comments that the risk of bias in the trials was generally low, the committee concluded that the trials showed that elbasvir-grazoprevir was effective in people with genotype 1 and 4 HCV.

4.4 The committee noted that the company submitted a network metaanalysis to provide comparative estimates of SVR and safety outcomes for elbasvir-grazoprevir and the relevant comparators included in the scope (except boceprevir and telaprevir) for 12 subpopulations (that is, genotype 1a, 1b and 4, further divided according to treatment history, and cirrhosis status). The committee was aware that the company used genotype 1 HCV data as a proxy for genotype 4 HCV. The committee and clinical experts considered this assumption valid given the limited data available for people with genotype 4 HCV, in line with previous NICE technology appraisals for chronic hepatitis C. The committee also noted the ERG's concern about the serious limitations of the network metaanalysis results, given the lack of connected trial networks and the imputation of missing treatment arms using peginterferon alpha plus ribavirin as a control arm. The committee was aware that the company also submitted a naive comparison, which was not discussed because it was considered to be the least robust method of comparing treatments across trials. The committee noted that the results of the network metaanalysis showed no significant differences in SVR rates between elbasvir-grazoprevir and the other all-direct-acting antiviral regimens

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(ledipasvir-sofosbuvir, ombitasvir-paritaprevir-ritonavir with dasabuvir, and daclatasvir-sofosbuvir) in any of the 12 subgroups. However, the results did show differences in SVR rates between elbasvir-grazoprevir and the peginterferon alpha plus ribavirin-containing regimens (except sofosbuvir plus peginterferon alpha plus ribavirin) in some subgroups. The committee heard from the clinical experts that these new all-direct-acting antiviral regimens were interchangeable for efficacy and tolerability, and treatment decisions would mostly be guided by cost. Although the committee recognised that there were limitations in the network meta-analysis, it concluded that elbasvir-grazoprevir was similar in efficacy to the other all-direct-acting antiviral regimens.

4.5 The committee considered the safety data included in the company's submission and was aware that the most commonly reported adverse events were headache, fatigue and nausea. The committee noted that the results showed that elbasvir-grazoprevir had a relatively favourable safety and tolerability profile, irrespective of cirrhosis stage and treatment experience, especially when compared with the peginterferon alpha plus ribavirin-containing regimen. It also heard from the clinical experts that elbasvir-grazoprevir had a similar safety profile to all-direct-acting antiviral regimens. The committee concluded that the adverse events associated with elbasvir-grazoprevir were generally tolerable.

Cost effectiveness

4.6 The committee considered the company's economic model, the assumptions underlying the values of the parameters, and the critique and exploratory analyses from the ERG. The committee noted that the structure of the model showing the natural history of the disease was similar to models submitted for other NICE technology appraisals for chronic hepatitis C. The committee considered the ERG's comment that a dynamic model would have better captured the health benefits of more effective treatments for preventing transmission of HCV. The committee had highlighted this as a concern in the previous hepatitis C appraisals.

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Although the committee would have preferred the company to explore further the effect of future transmission, it acknowledged that this would have needed a different (and potentially more complex) model structure. The committee agreed that not using a dynamic model introduces uncertainty in the cost-effectiveness estimates because of potential benefits not being captured, but concluded that the structure of the model was acceptable for decision-making.

- 4.7 The committee noted that unlike some of the previous hepatitis C appraisals, the company's model allowed for re-infection after getting a SVR. The committee considered this to be a good approach that will improve the robustness of the results. However it noted the ERG's concerns that the model allows people who become re-infected to go back to health state F0 (that is, no fibrosis), which assumes that liver damage caused by hepatitis C is fully reversible. The committee did not consider this assumption to be plausible and was aware that the ERG's base-case revision assumes that people who become re-infected after getting a SVR return to their pre-SVR fibrosis health state instead. The clinical experts agreed that the ERG's assumption was reasonable and better reflects clinical practice. The committee was satisfied with the company's approach of including re-infection but concluded that the ERG's assumption on re-infection was more reasonable.
- The committee discussed the population included in the company's model. It noted that the company presented separate analyses according to the 12 subpopulations covered by the marketing authorisation (see section 4.4). The committee was satisfied with the company's approach of assessing these groups separately. The committee noted the ERG's comment that the company's model does not account for the genotype 1a and 4 groups, for whom 16 weeks of elbasvir-grazoprevir treatment is recommended in line with the marketing authorisation. The committee understood that this could have cost implications as well as higher SVR rates for elbasvir-grazoprevir. It heard from the company and the clinical experts that only a few people could potentially have treatment for

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16 weeks. The committee heard from the ERG that the balance between the cost of an extra period of treatment and the benefits of getting an improved SVR rate and utility led to uncertainty in determining the cost effectiveness of this strategy. The committee noted the comments from the company and those from the stakeholders in the previous appraisals that people with HIV co-infection would be expected to be treated similarly to those with HCV infection alone. The clinical experts commented that people with HIV co-infection have more comorbidities and faster disease progression than those with HCV infection alone. The committee considered that this could mean that the newer treatments become associated with more health gains in people with HIV co-infection than in those with HCV alone. Without any evidence to support this assertion, it could not come to a conclusion on this. Therefore the committee concluded that it would not consider HIV co-infection separately.

- The committee considered the clinical inputs in the model. It noted that the company used the network meta-analysis to estimate the SVR, treatment discontinuation and adverse-event rates in the base case. The committee recalled its previous conclusion that there were limitations with the network meta-analysis, but accepted that this was the best source of evidence available for estimating the clinical inputs for model. The committee noted that the company used outcome data from genotype 1 as a proxy for genotype 4 in the base case, and recalled that it had accepted this approach for previous hepatitis C appraisals. It was aware that using genotype 4-specific data in the scenario analysis did not have a large effect on the incremental cost-effectiveness ratios (ICERs) for genotype 4. Taking into account the comments from the clinical experts (see section 4.4), the committee concluded that the company's approach to estimating the model's clinical inputs was acceptable.
- 4.10 The committee discussed the transition probabilities used in the model. It was aware that the company used the same sources for the non-treatment-specific transition probabilities as those used in previous appraisals. The committee was generally satisfied with this approach.

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However it noted that the company and the ERG used the study by Grishchenko et al. (2009) to estimate age-dependent transition probabilities across fibrosis health states F0–F3 (no cirrhosis health states) in scenario analyses, rather than the study by Thien et al. (2008) as used in the base case. When then ERG and the company did this, some of the ICERs increased above £20,000 per quality-adjusted life year (QALY) gained using the list price of elbasvir-grazoprevir. The committee noted that this was because of the slower progression rates using Grishchenko et al. It heard from the ERG that there was no particular preference because both the Grishchenko and Thien studies were published at a similar time. The committee considered that although Grishchenko et al. included UK patients, Thien et al. was a meta-analysis of several studies and included people from other countries. Without any clear rationale for preferring 1 study over the other, the committee concluded that the cost-effectiveness analyses using both studies should be considered.

4.11 The committee discussed how health-related quality of life was incorporated into the economic model. It noted that the company used utility data from the literature (Wright et al. 2006) in line with the previous NICE technology appraisals for chronic hepatitis C. The committee noted that the company collected utility data in some of the clinical trials using the EQ-5D but that no UK patients were included in the studies. It was aware that 1 of the company's scenario analyses and the ERG's preferred base case used the SVR-related utility increment from the European subgroup of the clinical trials. The committee noted that the average SVRrelated utility increment from Wright et al. was 0.05, which was larger than that reported in the European subgroup of the elbasvir-grazoprevir trials (0.03). The committee was aware that higher utility benefits from Wright et al. (0.05) and Vera-Llonch et al. (2013; 0.04) had been accepted in previous NICE technology appraisals for chronic hepatitis C. It emphasised that where available, it prefers utility values collected from the clinical trials used to inform the effectiveness of the intervention under

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evaluation to those estimated from other sources. Therefore, the committee concluded that the values from elbasvir-grazoprevir's clinical trials would be used to inform its decision for this appraisal, but it was aware that this assumption had little effect on the results. The committee also noted the ERG's comment that the company's approach of including age-based utility decrements could lead to double-counting. The ERG stated that utility values used in the model already incorporate the effect of ageing, because they were based on average utility data from Wright et al. that included people with a wide range of ages. The committee agreed that there would be some double-counting at first, but in the later stages of a life-time model, utility decrements would need to be accounted for separately. The committee was aware that including age-based utility decrements had very little effect on the ICERs and it concluded that both the company's and the ERG's approach would be taken into account in the decision-making.

- 4.12 The committee considered the costs used in the company's model. It noted that list prices of elbasvir-grazoprevir and the comparators were used in the company's base case. The committee noted from the company submission that elbasvir-grazoprevir has a confidential reduced price based on contract pricing arrangements between the company and the Commercial Medicines Unit. It also noted that confidential reduced contract prices for the comparators were included in the analyses undertaken by the ERG, where known and important to the committee's decision-making. The committee understood that the contract prices were the prices that the NHS pays for these treatments. The committee noted that NICE's guide to the methods of technology appraisal prefers using nationally available price reductions in the reference-case analysis to reflect the price relevant to the NHS. The committee concluded that the contract prices were the most relevant prices to the NHS and therefore the appropriate prices on which to base its decision.
- 4.13 The committee considered the cost effectiveness of elbasvir-grazoprevir.

 It noted that all ICERs were below £20,000 per QALY gained, regardless

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of genotype, treatment history or cirrhosis status. The committee noted that this applied to the different analyses presented (that is, those of the company compared with the ERG; base case compared with scenario analyses; and pairwise compared with fully incremental results). It concluded that elbasvir-grazoprevir was a cost-effective use of NHS resources. The committee also noted that accounting for the few patients who could have up to 16 weeks of elbasvir-grazoprevir did not change the conclusion on the cost effectiveness of elbasvir-grazoprevir. The committee therefore recommended elbasvir-grazoprevir within its marketing authorisation for treating genotype 1a, 1b and 4 HCV.

The committee was aware of NHS England's ongoing concerns about the increase in investment and capacity needed to make these new oral treatments for hepatitis C available. The committee heard that the capacity to treat all eligible persons with hepatitis C in the NHS according to the NICE's recommendation is still constrained. It recalled that treatment decisions are influenced by clinical characteristics including HCV genotype, level of liver damage, comorbidities, and treatment history. With these factors in mind, people with chronic hepatitis C may accept treatment being prioritised for those with the highest unmet clinical need (including some people without cirrhosis), as determined by multidisciplinary teams.

Innovation

4.15 The committee agreed with the company that there is significant unmet need in people with chronic hepatitis C complicated by severe renal disease. The committee noted that like some of the newer treatments for chronic hepatitis C, the dose of elbasvir-grazoprevir does not need to be adjusted for any stage of renal impairment. The committee also recognised the additional value of elbasvir-grazoprevir as an interferonand ribavirin-free treatment but concluded that these health gains are likely to have been included in the QALY calculations. The committee agreed that there were other wider benefits to society (for example,

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reduced transmission of HCV) that were not captured in the QALY calculation and that, if taken into account, were likely to decrease the ICERs. However, the committee noted that it had taken these potential benefits into account when considering the cost effectiveness of elbasvir-grazoprevir and concluded that its recommendations for each population remained unchanged.

Equality issues

A.16 The committee noted the potential equality issues raised by the company and a professional organisation that there are proportionately more people from black, Asian and minority ethnic groups and people with HIV coinfection in the genotype 4 population than in the genotype 1 population. The committee also noted from the company that people who have hepatitis C and chronic kidney disease can feel stigmatised because they must have dialysis treatment in a separate room. The company also commented that people with HIV co-infection are more likely to disclose their HIV status than their hepatitis C status because of the perceived stigma around hepatitis C as a result of the lack of awareness about the condition. However, having decided that elbasvir grazoprevir should be recommended for genotype 1 and 4, the committee concluded that no further consideration of these potential equality issues was needed to meet NICE's obligation to promote equality of access to treatment.

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Summary of appraisal committee's key conclusions

TAXXX	Appraisal title: Elbasvir-grazoprevir for	Section	
	treating chronic hepatitis C		
Key conclusion			
Elbasvir-grazoprevir is	Elbasvir-grazoprevir is recommended, within its marketing		
authorisation, as an o	ption for treating genotype 1 or 4 chronic		
hepatitis C (HCV) in a	dults), only if the company provides the drug at		
the same price or low Medicines Unit.	er than that agreed with the Commercial		
The committee con	cluded that the trials showed that		
elbasvir-grazoprevi	r was effective in people with genotype 1 and 4		
HCV and that the r	etwork meta-analysis showed	4.3, 4.4	
elbasvir-grazoprevi	r to be similar in efficacy to the other all-direct-	,	
acting antiviral regi	mens.		
The Committee cor	ncluded that the contract prices were the most	4.12	
relevant prices to the	4.12		
which to base its de			
The committee note	ed that all ICERs for elbasvir-grazoprevir	4.40	
compared with other	er treatments were below £20,000 per QALY	4.13	
gained regardless			
status.			
Current practice			
Clinical need of	The committee heard from the clinical and	4.1	
patients, including	patient experts that some of the newer		
the availability of	treatments are given in combination with		
alternative	peginterferon alpha or ribavirin, and that		
treatments	having treatment options that are free from		
	peginterferon alpha with or without ribavirin is		
	important to people with HCV because of the		

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	associated adverse reactions.	
The technology		
Proposed benefits of	The committee noted that elbasvir-grazoprevir	4.1
the technology	does not have to be used with ribavirin, an	
How innovative is the technology in its potential to make a	important advantage for improved tolerability in people with renal disease. The committee recognised the additional	4.15
significant and	value of elbasvir-grazoprevir as an interferon-	4.15
substantial impact	and ribavirin-free treatment but concluded that	
on health-related	these health gains are likely to have been	
benefits?	included in the quality-adjusted life year	
	(QALY) calculations. The Committee agreed	
	that there were other wider benefits to society	
	(for example, reduced transmission of HCV),	
	but noted that it had taken these potential	
	benefits into account when considering the	
	cost effectiveness of elbasvir grazoprevir.	
What is the position	The committee also heard that	4.1
of the treatment in	elbasvir-grazoprevir provided another	
the pathway of care	alternative to the existing oral treatment	
for the condition?	combinations for people with genotype 1	
	and 4 HCV.	
Adverse reactions	The committee concluded that the adverse	4.5
	events associated with elbasvir-grazoprevir	
	were generally tolerable and	
	elbasvir-grazoprevir has a similar safety	
	profile to all-direct-acting antiviral regimens.	
Evidence for clinical effectiveness		

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Availability, nature	The committee noted that 4 out of the	4.3
and quality of	8 clinical trials for elbasvir-grazoprevir had a	
evidence	comparator arm (3 placebo-controlled trials	
	and 1 active-controlled trial with sofosbuvir	
	plus peginterferon alpha plus ribavirin). It also	
	noted that the risk of bias in the trials was	
	generally low.	
	The committee noted the limited available	
	evidence in people with genotype 4 HCV.	
	The company also submitted a network meta-	
	analysis to provide comparative estimates of	4.4
	sustained virological response and safety	
	outcomes for elbasvir-grazoprevir and the	
	relevant comparators included in the scope	
	(except boceprevir and telaprevir).	
Uncertainties	The committee noted the ERG's concern	4.4
generated by the	about the serious limitations of the network	
evidence	meta-analysis results, given the lack of	
	connected trial networks and the imputation of	
	missing treatment arms using peginterferon	
	alpha plus ribavirin as a control arm. The	
	Committee noted that there was limited	
	evidence available in people with genotype 4	
	HCV, therefore genotype 1 data was used as	
	a proxy for genotype 4.	

Are there any	The committee recommended	4.13
clinically relevant	elbasvir-grazoprevir for all subgroups in line	
subgroups for which	with the marketing authorisation.	
there is evidence of		
differential		
effectiveness?		
Estimate of the size	Having noted the high sustained virological	4.3
of the clinical	response rates as well as the ERG and the	
effectiveness	company's comments that the risk of bias in	
including strength of	the trials was generally low, the committee	
supporting evidence	concluded that the trials showed that	
	elbasvir-grazoprevir was effective in people	
	with genotype 1 and 4 HCV.	
	A lab accorde also a companiente a una compilia a el aborta de cua	
	Although the committee recognised that there	
	were limitations in the network meta-analysis,	4.4
	it concluded that elbasvir-grazoprevir was	4.4
	similar in efficacy to the other all-direct-acting	
	antiviral regimens.	
Evidence for cost eff	 fectiveness	
Availability and	The Committee noted that the structure of the	4.6
nature of evidence	model showing the natural history of the	
	disease was similar to models submitted for	
	other NICE technology appraisals for chronic	
	hepatitis C.	
Harris de la Caracacacacacacacacacacacacacacacacacaca		4.0
Uncertainties around	The committee agreed that not using a	4.6
and plausibility of	dynamic model to capture the effect of future	
assumptions and	transmission introduces uncertainty in the	
inputs in the	cost-effectiveness estimates because of	
economic model	potential benefits not being captured, but	

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	concluded that the structure of the model was acceptable for decision-making. The committee was aware that there were limitations with the network meta-analysis, but concluded that this was the best source of evidence available for estimating the clinical inputs for model. The committee was aware that the company used the same sources for non-treatment-specific transition probabilities as those used in previous appraisals, although using a different source increased the incremental cost-effectiveness ratios (ICERs) above £20,000 per QALY gained. Without any clear rationale for preferring 1 study over the other, the committee concluded that the cost-effectiveness analyses using both studies should be considered.	4.10
Incorporation of health-related quality-of-life benefits and utility values Have any potential significant and substantial health- related benefits been identified that were	The committee noted that utility values collected from the clinical trials used to inform the effectiveness of the intervention under evaluation have been preferred to those estimated from other sources. The committee also noted the company's approach of including age-based utility decrements could lead to double-counting. However, the committee was aware that this assumption had little effect on the results.	4.11
not included in the economic model,	The committee recognised the additional value of elbasvir-grazoprevir as an interferon-	4.15

and how have they	and ribavirin-free treatment but concluded that		
been considered?	these health gains are likely to have been		
	included in the QALY calculations. The		
	Committee agreed that there were other wider		
	benefits to society (for example, reduced		
	transmission of HCV), but noted that it had		
	taken these potential benefits into account		
	when considering the cost effectiveness of		
	elbasvir-grazoprevir.		
Are there specific	The committee recommended the elbasvir-	4.13	
groups of people for	grazoprevir for all subgroups in line with the		
whom the	marketing authorisation.		
technology is			
particularly cost			
effective?			
What are the key	The prices of the drugs and the non-	4.10, 4.13	
drivers of cost	treatment-transition probabilities were the key		
effectiveness?	drivers of the cost-effectiveness results.		
Most likely cost-	The committee noted that all ICERs for	4.13	
effectiveness	elbasvir-grazoprevir compared with other		
estimate (given as	treatments were below £20,000 per QALY		
an ICER)	gained, regardless of genotype, treatment		
	history or cirrhosis status.		
Additional factors taken into account			
Patient access	The company has agreed a nationally	1.1	
schemes	available price reduction for		
	elbasvir-grazoprevir with the Commercial		
	Medicines Unit.		
	Confidential reduced contract prices for the		

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	comparators were included in the analyses	4.13
	undertaken by the ERG, where known and	
	important to the committee's decision-making.	
	The contract prices used in this appraisal are	
	confidential and cannot be disclosed.	
Pharmaceutical	Not applicable	
	Two applicable	
Price Regulation		
Scheme (PPRS)		
2014		
End-of-life	Not applicable	
	Not applicable	
considerations		
Equalities	Having decided that elbasvir-grazoprevir	4.16
considerations and	should be recommended for all the groups	
social value	specified in the marketing authorisation, the	
judgements	committee concluded that no further	
	consideration of the potential equality issues	
	raised by consultees was needed to meet	
	NICE's obligation to promote equality of	
	access to treatment.	

5 Implementation

5.1 Section 7(6) of the National Institute for Health and Care Excellence

(Constitution and Functions) and the Health and Social Care Information

Centre (Functions) Regulations 2013 requires clinical commissioning

groups, NHS England and, with respect to their public health functions,

local authorities to comply with the recommendations in this appraisal

within 3 months of its date of publication.

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- The Welsh Assembly Minister for Health and Social Services has issued directions to the NHS in Wales on implementing NICE technology appraisal guidance. When a NICE technology appraisal recommends the use of a drug or treatment, or other technology, the NHS in Wales must usually provide funding and resources for it within 3 months of the guidance being published.
- 5.3 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 chronic hepatitis C and the doctor responsible for their care thinks that elbasvir-grazoprevir is the right treatment, it should be available for use, in line with NICE's recommendations.
- 5.4 The contract prices used for decision-making in this appraisal are the relevant prices that the NHS pays for elbasvir-grazoprevir. These prices are based on contract pricing arrangements between the company and the Commercial Medicines Unit. The contract prices are commercial in confidence. Any enquiries from NHS organisations about the contract prices used in this appraisal should be directed to the Commercial Medicines Unit.

6 Review of guidance

The guidance on this technology will be considered for review 3 years after publication. The guidance executive will decide whether the technology should be reviewed based on information gathered by NICE, and in consultation with consultees and commentators.

Gary McVeigh
Chair, appraisal committee
August 2016

Issue date: August 2016

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Appraisal committee members and NICE project 7

team

Appraisal 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 to be

appraised. If it is considered there is a conflict of interest, the member is excluded

from participating further in that appraisal.

The minutes of each appraisal committee meeting, which include the names of the

members who attended and their declarations of interests, are posted on the NICE

website.

NICE project team

Each technology appraisal is assigned to a team consisting of 1 or more health

technology analysts (who act as technical leads for the appraisal), a technical

adviser and a project manager.

Aminata Thiam

Technical Lead

Nwamaka Umeweni

Technical Adviser

Kate Moore

Project Manager

ISBN: [to be added at publication]

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