

Integrated Impact Assessment Report for Clinical Commissioning Policies				
Policy Reference Number	ID010	ID010		
Policy Title		Bictegravir-emtricitabine-tenofovir alafenamide for the treatment of HIV-1 in adults Proposal <u>for routine commission</u> (ref A3.1)		
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### About this Impact Assessment: instructions for completion and explanatory notes

- Each section is divided into themes.
- Each theme sets out a number of questions.
- All questions are answered by selecting a drop down option or including free text.
- Free text boxes are provided to enable succinct relevant commentary to be added which explains the rationale for response or assumption. Please limit responses to 3 sentences of explanatory text.
- Data in this document is either drawn from one of the relevant policy documents or a source for the information is provided.
- Where assumptions are included where data is not available, this is specified.

Section	on A - Activity Impact
A1 Current Patient Population & Demography / Growth	
A1.1 Prevalence of the disease/condition.	In 2017, 85,537 people (84,551 adults and 986 children) were seen for HIV care in England, including 3,973 (3,809 adults and 164 children) newly diagnosed cases of HIV.  Source: Public Health England 2018, Country and PHE region HIV data tables
A1.2 Number of patients currently eligible for the treatment according to the proposed policy commissioning criteria.	<ul> <li>12,670</li> <li>From the prevalent population of 85,537 people, the following estimates are assumed: <ul> <li>99% (84,551 people) are adults</li> <li>98% (82,860 adults) will receive ART</li> <li>14% (11,238 adults) will meet the NHS England commissioning policy for TAF (criteria group 1)</li> <li>2% (1,432 adults) will require an unboosted integrase inhibitor containing regimen but neither: <ul> <li>raltegravir; NOR</li> <li>dolutegravir can be taken due to drug-drug interactions or poor tolerability/toxicity (criteria group 2)</li> </ul> </li> <li>This gives a potential eligible population of 12,670 people.</li> <li>Source: Public Health England 2018, Country and PHE region HIV data</li> </ul> </li> </ul>
	It is expected that c5% of patients will transfer to the new treatment by the end of the first year (634 patients)

A1.3 Age group for which the treatment is proposed according to the policy commissioning criteria.	Adults  B/F/TAF has a positive opinion from the EMA's Committee for Medicinal Products for Human Use (CHMP) for the treatment of adults infected with HIV-1 without present or past evidence of viral resistance to the integrase inhibitor class, emtricitabine or tenofovir.			
A1.4 Age distribution of the patient population eligible according to the proposed policy commissioning criteria	Age range Prevalence Incidence  18 - 24			
A1.5 How is the population currently distributed geographically?	Unevenly If unevenly, estimate regional distribution by %:  North 18% Midlands & East 22% London 43% South 18%			

	Please note that the PHE data is shown for the age bracket 15-24 and a even distribution has been assumed to estimate those aged 18-24.  Source: Public Health England 2018, Country and PHE region HIV data tables			
A2 Future Patient Population & Demography				
A2.1 Projected changes in the disease/condition epidemiology,	Increasing			
such as incidence or prevalence (prior to applying the new policy) in 2, 5, and 10 years?	Change in epidemiology	Year 2	Year 5	Year 10
	Prevalence in adults	91,619	100,916	113,457
	Incidence in adults	3,448	2,970	2,315
	Since 2005 the number of people being newly diagnosed with HIV has generally fallen each year. However the prevalent population seen for HIV care in England has increased each year between 2007 and 2017.  Source: Calculated in the resource impact template			
A2.2 Are there likely to be changes in demography of the patient population and would this impact on activity/outcomes?	Yes  There is an ageing population because people live longer with HIV and are maintained on ART. Therefore, each year the proportion of people with HIV aged over 50 years will increase and so will the number of people who have co-morbidities. These people will be eligible for TAF.			

Also PHE reported in 2018 that a reduction in diagnoses among black African and black Caribbean heterosexuals was largely due to a decrease in migration from high prevalence countries. For the first time there has also been a drop in the number of diagnoses reported among other heterosexuals, which fell by 20% to 849 in 2017; previously, diagnoses had remained stable at around 1,000 diagnoses per year. Diagnosis rates in gay and bisexual men have been falling since 2015. This is due to increases in HIV tests among gay and bisexual men attending sexual health clinics including repeat testing in higher risk men, as well as improvements in the uptake of anti-retroviral therapy following HIV diagnosis.
Source: Trends in new HIV diagnoses and people receiving HIV-related

A2.3 Expected net increase or decrease in the number of patients who will be eligible for the service, according to the proposed service specification commissioning criteria, per year in years 2-5 and 10?

Are these numbers in line with ONS growth assumptions for the age specific population? If not please justify the growth assumptions made.

YR2 +/-	1,059
YR3 +/-	1,548
YR4 +/-	2,012
YR5 +/-	2,452
YR10 +/-	4,332

Health England 2018

Source: Resource impact template. Service specification proposition section 3.1

care in the United Kingdom: data to the end of December 2017. Public

#### No

The starting population from which prevalence and incidence figures are calculated are from PHE figures (Public Health England 2018, Country and PHE region HIV data tables). In 2017 there were 3,973 new cases of HIV diagnosed. Since 2005 the number of people being newly diagnosed with HIV has generally fallen each year. To estimate incidence over the

next 10 years, 3,973 has been used as the incidence for year 0 and the average decrease has then been applied each year. In 2017 there were 85,537 people seen for HIV care. The prevalence in future years has been calculated as prior year prevalence plus incidence less mortality.

It is expected that c5% of the eligible population will transfer to the new treatment by the end of the 1<sup>st</sup> year.

## A3 Activity

A3.1 What is the purpose of new policy?

# Confirm routine commissioning position of an additional new treatment

The proposal is to routinely commission B/F/TAF for treating HIV-1 in adults. This policy would provide an additional treatment option under the following criteria:

B/F/TAF will be routinely commissioned in HIV-1 infected adults in line with cost-based, regional prescribing guidelines:

- 1. if they meet the commissioning criteria as outlined in the NHS England commissioning policy: tenofovir alafenamide for treatment of HIV-1 in adults and adolescents. Ref: NHS England: 16043/P (see aAppendix I); OR
- 2. if they require an unboosted integrase inhibitor containing regimen but neither:
- raltegravir; NOR
- dolutegravir

can be taken due to drug-drug interactions or poor tolerability/toxicity.

A3.2 What is the annual activity associated with the existing pathway for the eligible population?	The estimated annual number of people who will eligible to receive B/F/TAF are estimated to be as follows:				
	Year 0		12,670		
	Year 1		13,214		
	Year 2		13,730		
	Year 5		15,123		
	Year 10		17,002		
	The estimate takes into account the people treated from the prevalent and incident populations.  Source: Resource impact template, based on published data and a number of assumptions.				
A3.3 What is the estimated annual activity associated with the	The estimated annual activity for people eligible to receive B/F/TAF are:				
proposed policy proposition pathway for the eligible population?	Year 1			248	
	Year 2			501	
	Year 5		592		
	Year 10		514		
assumptions.  Please specify The estimate to		akes into account the p	ased on published data and becope treated from the prevaluptake is profiled over time.	ent	
A3.4 What is the estimated annual activity associated with the next best alternative comparator pathway for the eligible population? If	Not applicable				

the only alternative is the existing pathway, please state 'not
applicable' and move to A4.

#### **A4 Existing Patient Pathway**

A4.1 **Existing pathway:** Describe the relevant currently routinely commissioned:

- Treatment or intervention
- Patient pathway
- Eligibility and/or uptake estimates.

The overall goal of treatment is HIV-1 viral suppression (maintaining an undetectable viral load level). British HIV Association Treatment guidelines (BHIVA) for adults currently recommend the following first-line treatment (Waters et al. 2016):

- One of the following nucleoside analog reverse-transcriptase inhibitor (NRTI) backbones:
  - emtricitabine and tenofovir disoproxil fumarate (F/TDF): recommended for individuals who do not show established or significant risk factors for kidney or bone problems. OR
  - emtricitabine and tenofovir alafenamide (F/TAF): preferred option if the individual has established or significant risk factors for kidney or bone problems. OR
  - 3. abacavir and lamivudine: alternative option, although an individual should not be given abacavir if there are contraindications e.g. HLA-B\*5701 positive, hepatitis B co-infection or high risk of cardiovascular disease. AND
- a third drug: of which the preferred options are atazanavir/ritonavir, or darunavir /ritonavir, or raltegravir or elvitegravir/cobicistat or rilpivirine, or dolutegravir. An alternative option is efavirenz.

Source: DPP section 6

A4.2. What are the current treatment access and stopping criteria?	All people diagnosed with HIV are eligible for treatment. People may switch to an appropriate alternative antiretroviral therapy if there is a non-response to treatment or tolerability issues. They may also switch to an appropriate alternative antiretroviral therapy if there are clinically suitable or less expensive options available.		
A4.3 What percentage of the total eligible population is expected to:  a) Be clinically assessed for treatment b) Be considered to meet an exclusion criteria following assessment c) Choose to initiate treatment d) Comply with treatment e) Complete treatment?  A5 Comparator (next best alternative treatment) Patient Pathwa (NB: comparator/next best alternative does not refer to current pathway but to an			
A5.1 Next best comparator:	No No		
Is there another 'next best' alternative treatment which is a relevant comparator?			
If yes, describe relevant			
Treatment or intervention			
Patient pathway			
Actual or estimated eligibility and uptake			

A5.2 What percentage of the total eligible population is estimated to:  a) Be clinically assessed for treatment b) Be considered to meet an exclusion criteria following assessment c) Choose to initiate treatment d) Comply with treatment e) Complete treatment?	N/A
A6 New Patient Pathway	
A6.1 What percentage of the total eligible population is expected to:  a) Be clinically assessed for treatment b) Be considered to meet an exclusion criteria following assessment c) Choose to initiate treatment d) Comply with treatment e) Complete treatment?	If not known, please specify  a) 100% - all people will be clinically assessed for treatment b) 14% - of people are estimated to meet the criteria for group 1 2% of people are estimated to meet the criteria for group 2 c) 98% - based on current uptake rates of ART d) 95% - based on clinical opinion e) 94% - 6% of the eligible population are expected to cease treatment because of non-response to treatment or tolerability issues  Source: Public Health England 2018, Country and PHE region HIV data tables, IIAR for IART
A6.2 Specify the nature and duration of the proposed new treatment or intervention.	<u>Life long</u>
A7 Treatment Setting	

A7.1 How is this treatment delivered to the patient?	Select all that apply:			
	Emergency/Urgent care attendance			
	Acute Trust: inpatient	Acute Trust: inpatient		
	Acute Trust: day patient	Acute Trust: day patient		
	Acute Trust: outpatient		$\boxtimes$	
	Mental Health provider: inpatient			
	Mental Health provider: o	Mental Health provider: outpatient		
	Community setting			
	Homecare		$\boxtimes$	
	Other			
	Please specify:			
A7.2 What is the current number of contracted providers for the	NORTH	56 clinics		
eligible population by region?	MIDLANDS & EAST	50 clinics		
	LONDON	30 clinics		
	SOUTH	46 clinics		
	No			
A7.3 Does the proposition require a change of delivery setting or capacity requirements?	No No			
especies, respectively				

A8 Coding			
A8.1 Specify the datasets used to record the new patient pathway	Select all that apply:		
activity.	Aggregate Contract Monitoring *	$\boxtimes$	
*expected to be populated for all commissioned activity	Patient level contract monitoring		
	Patient level drugs dataset		
	Patient level devices dataset		
	Devices supply chain reconciliation dataset		
	Secondary Usage Service (SUS+)		
	Mental Health Services DataSet (MHSDS)		
	National Return**		
	Clinical Database**	$\boxtimes$	
	Other**	$\boxtimes$	
	**If National Return, Clinical database or other HARS database and local drug use and pharmac		
A8.2 Specify how the activity related to the new patient pathway	Select all that apply:		
will be identified.	OPCS v4.8		
	ICD10		
	Treatment function code		
	Main Speciality code	$\boxtimes$	
	HRG		

	SNOMED		
	Clinical coding / terming methodology used by clinical profession	$\boxtimes$	
	HARS database and local drug use and pharmac	reporting	
A8.3 Identification Rules for Drugs: How are drug costs captured?	Not already specified in current NHS Englan	d Drugs List docu	<u>ment</u>
A8.4 Identification Rules for Devices: How are device costs captured?	Not applicable		
A8.5 Identification Rules for Activity:	Already correctly captured by an existing sp	ecialised service l	ine
How are activity costs captured?	(NCBPS code within the PSS Tool  If activity costs are already captured please specified code and description (e.g. NCBPS01C  NCPDS14Z HIV Outpatient activity. High Cost	Chemotherapy).	
	through costs. Note that there will be no inc inpatient) activity associated with this policy	rease in outpatient	
	If activity costs are already captured please speneds a separate code. <b>No</b>		rvice
	If the activity is captured but the service line needspecify whether the proposed amendments have agreed with the Identification Rules team.		
	N/A		
A9 Monitoring			

A9.1 Contracts Specify any new or revised data flow or data collection requirements, needed for inclusion in the NHS Standard Contract Information Schedule.	None None
A9.2 Excluded Drugs and Devices (not covered by the Zero Cost Model)  For treatments which are tariff excluded drugs or devices not covered by the Zero Cost Model, specify the pharmacy or device monitoring required, for example reporting or use of prior approval systems.	Select all that apply:  Drugs or Device MDS  Blueteq  Other prior approval  □  Please specify: Local ART reporting, HARS and PharmEx feeds.
A9.3 Business intelligence Is there potential for duplicate reporting?	<u>No</u>
A9.4 Contract monitoring Is this part of routine contract monitoring?	Yes  If yes, please specify contract monitoring requirement:  Drug usage and spend on ARTs already part of routine contract monitoring for HIV services as excluded from tariff.
A9.5 <b>Dashboard reporting</b> Specify whether a dashboard exists for the proposed intervention?	Yes HARS data already used to populate dashboards.
A9.6 <b>NICE reporting</b> Are there any directly applicable NICE or equivalent quality standards which need to be monitored in association with the new policy?	<u>No</u>

Section B	- Service Impact
B1 Service Organisation	
B1.1 Describe how the service is currently organised? (i.e. tertiary centres, networked provision etc.)	Specialised HIV treatment clinics arranged in local networks across regions.
	Source: IIAR for immediate antiretroviral therapy for HIV
B1.2 Will the proposition change the way the commissioned service is organised?	<u>No</u>
	Source: IIAR for immediate antiretroviral therapy for HIV
B1.3 Will the proposition require a new approach to the organisation of care?	No change to delivery of care
B2 Geography & Access	
B2.1 Where do current referrals come from?	Select all that apply:
	GP ⊠
	Secondary care
	Tertiary care ⊠
	Other 🖂
	Please specify:  Referrals come from any organisation where a positive diagnosis of HIV has been made, e.g. GUM, GP, secondary care, A&E services.

B2.2 What impact will the new policy have on the sources of referral?	No impact
B2.3 Is the new policy likely to improve equity of access?	No impact
B2.4 Is the new policy likely to improve equality of access and/or outcomes?	No impact Please specify: B/F/TAF would provide another treatment option  Source: Equalities Impact Assessment
B3 Implementation	
B3.1 Will commissioning or provider action be required before implementation of the proposition can occur?	No action required
B3.2 <b>Time to implementation:</b> Is a lead-in time required prior to implementation?	No - go to B3.4
B3.3 Time to implementation:	Choose an item.
If lead-in time is required prior to implementation, will an interim plan for implementation be required?	If yes, outline the plan: Click here to enter text.
B3.4 Is a change in provider physical infrastructure required?	<u>No</u>

<u>No</u>	
<u>No</u>	
<u>No</u>	
<u>No</u>	
No change	
Select all that apply:	
Publication and notification of new policy	$\boxtimes$
Market intervention required	
Competitive selection process to secure increase or decrease provider configuration	
Price-based selection process to maximise cost effectiveness	
	No  No  No change  Select all that apply:  Publication and notification of new policy  Market intervention required  Competitive selection process to secure increase or decrease provider configuration  Price-based selection process to maximise cost

	Any qualified provider			
	National Commercial Agreements e.g. drugs, devices		₫	
	Procurement			
	Other			
	Please spe Click here	cify: to enter text.		
B4 Place-based Commissioning				
B4.1 Is this service currently subject to, or planned for, place- based commissioning arrangements? (e.g. future CCG lead, devolved commissioning arrangements, STPs)	<u>No</u>			
Section C	- Finance Ir	npact		
C1 Tariff/Pricing				
C1.1 How is the service contracted and/or charged?	Select all	that apply:		
Only specify for the relevant section of the patient pathway  Drugs		Not separately charged – part of local or nation tariffs	al	
	Drugs	Excluded from tariff – pass through		$\boxtimes$
		Excluded from tariff - other		
	Devices	Not separately charged – part of local or nation tariffs	al	
		Excluded from tariff (excluding ZCM) - pass the	rough	

		Excluded from tariff (excluding ZCM) - other	
		Via Zero Cost Model	
		Paid entirely by National Tariffs	
		Paid entirely by Local Tariffs	
		Partially paid by National Tariffs	
	Activity	Partially paid by Local Tariffs	$\boxtimes$
		Part/fully paid under a Block arrangement	$\boxtimes$
		Part/fully paid under Pass-Through arrangements	
		Part/fully paid under Other arrangements	
C1.2 <b>Drug Costs</b> Where not included in national or local tariffs, list each drug or combination, dosage, quantity, <b>list</b> price including VAT if applicable and any other key information e.g. Chemotherapy Regime.  NB discounted prices or local prices must not be included as these are subject to commercial confidentiality and must not be disclosed.	the clinical guidelines. ART regim through whof a given across reg on a two-ye monthly. To reflect loachieved of achieved of the clinical subject to t	RT regimens are commissioned and prescribed depending indications of the patient and the regional prescribing ens are procured through the Commercial Medicines United NHS England receives discounted prices from the list regimen. The prices are commercially sensitive and vary ions and regimens. The regional frameworks are re-tenderally basis, with 1 of the 4 regions being re-tendered six-here are also opportunities to reduce prices mid contract ower prices in the market, ensuring that the best value is on the cost of ART (and other high cost drugs).	it, st price ered
C1.3 Device Costs	N/A		

Where not included in national or local tariff, list each element of the excluded device, quantity, <b>list or expected</b> price including VAT if applicable and any other key information.  NB: Discounted prices or local prices must not be included as these are subject to commercial confidentiality and must not be disclosed.	
C1.4 Activity Costs covered by National Tariffs	N/A
List all the HRG codes, HRG descriptions, national tariffs (excluding MFF), volume and other key costs (e.g. specialist top up %)	
C1.5 Activity Costs covered by Local Tariff List all the HRGs (if applicable), HRG or local description, estimated average tariff, volume and any other key costs. Also indicate whether the Local Tariff(s) is/are newly proposed or established and if newly proposed how is has been derived, validated and tested.	Activity costs already captured and funded under local arrangements (block/ cost and volume/ attendance based tariffs depending on local agreement). No additional activity generated through this policy.
C1.6 Other Activity Costs not covered by National or Local Tariff	N/A
Include descriptions and estimates of all key costs.	
C1.7 Are there any prior approval mechanisms required either during implementation or permanently?	<u>No</u>
C2 Average Cost per Patient	

C2.1 What is the estimated cost per patient to NHS England, in	YR1	£TBC	
years 1-5, including follow-up where required?	YR2	£TBC	
	YR3	£TBC	
	YR4	£TBC	
	YR5	£TBC	
Are there any changes expected in year 6-10 which would impact the model?	Above costs are b	ased on list prices	
C3 Overall Cost Impact of this Policy to NHS England			
C3.1 Specify the budget impact of the proposal on NHS England in relation to the relevant pathway.	Cost pressure		
	Year 1 - £TBC		
	Year 2 - £TBC		
	Year 5 - £TBC		
	Year 10 - £TBC		
C3.2 If the budget impact on NHS England cannot be identified set out the reasons why this cannot be measured.	Not applicable		
C3.3 If the activity is subject to a change of commissioning responsibility, from CCG to NHS England, has a methodology for the transfer of funds been identified, and calculated?	Not applicable		
C4 Overall cost impact of this policy to the NHS as a whole			

C4.1 Specify the budget impact of the proposal on other parts of the NHS.	Budget impact for CCGs:  No impact on CCGs  Budget impact for providers:  No impact on providers  Please specify:  NHS England is responsible for all ART drug costs
C4.2 Taking into account responses to C3.1 and C4.1, specify the budget impact to the NHS as a whole.	Cost pressure Year 1 - £TBC Year 2 - £TBC Year 5 - £TBC Year 10 - £TBC
C4.3 Where the budget impact is unknown set out the reasons why this cannot be measured	Not applicable
C4.4 Are there likely to be any costs or savings for non-NHS commissioners and/or public sector funders?	<u>No</u>
C5 Funding	
C5.1 Where a cost pressure is indicated, state known source of funds for investment, where identified, e.g. decommissioning less clinically or cost-effective services.	CPAG prioritisation reserve

C6.1 What are the material financial risks to implementing this policy?	There is a risk that the number of people eligible for TAF, and therefore eligible for B/F/TAF, will increase in future years. As the HIV population ages and are maintained on ART, there will be more people with comorbidities who require treatment with TAF.
C6.2 How can these risks be mitigated?	The increase in numbers is likely to be low in the short-term. Also there are likely to be more new treatments coming to market in the short to medium term whose introduction is likely to further affect the number of people treated with B/F/TAF.
C6.3 What scenarios (differential assumptions) have been explicitly tested to generate best case, worst case and most likely total cost scenarios?	According to clinical opinion uptake of B/F/TAF will depend on the price compared to its comparators.  If B/F/TAF is more expensive than its comparators then only a small proportion of the eligible population will be treated with it, resulting in a cost pressure as specified in C4.2.  If B/F/TAF is the same price as its comparators then 1.5 times as many people could be treated with it, however this will have a negligible effect on overall resource impact.  If B/F/TAF is cheaper than its comparators then 2 times as many people could be treated with it and this would result in a saving.
C6.4 What scenario has been approved and why?	Uptake in the resource impact template assumes that B/F/TAF is more expensive than the comparators. This is the most conservative estimate

C7.1 What published evidence is available that the treatment is cost effective as evidenced in the evidence review?	The clinical evidence review for this technology found no studies relating to cost effectiveness	
C7.2 Has other data been identified through the service specification development relevant to the assessment of value for money?	Select all that apply:	
	Available pricing data suggests the treatment is equivalent cost compared to current/comparator treatment	
	Available pricing data suggests the treatment is lower cost compared to current/comparator treatment	
	Available clinical practice data suggests the new treatment has the potential to improve value for money	
	Other data has been identified	
	No data has been identified	$\boxtimes$
	The data supports a high level of certainty about the impact on value	
	The data does not support a high level of certainty about the impact on value	
C8 Cost Profile		
C8.1 Are there non-recurrent capital or revenue costs associated with this policy?	No No	
C8.2 If yes, confirm the source of funds to meet these costs.	Not applicable	