

Integrated Impact Assessment Report for Clinical Commissioning Policies			
Policy Reference Number	1742		
Policy Title	Allogeneic Haematopoietic Stem Cell Transplant for Primary Immunodeficiencies (all ages) Proposal <u>for routine commission</u> (ref A3.1)		

Integrated Impact Assessment - Index						
Section A – Activity	ection A – Activity Section B - Service Section C – Finance					
A1 Current Patient Population & Demography / Growth	B1 Service Organisation	C1 Tariff				
A2 Future Patient Population & Demography	B2 Geography & Access	C2 Average Cost per Patient				
A3 Activity	B3 Implementation	C3 Overall Cost Impact of this Policy to NHS England				
A4 Existing Patient Pathway	B4 Collaborative Commissioning	C4 Overall cost impact of this policy to the NHS as a whole				
A5 Comparator (next best alternative treatment) Patient Pathway		C5 Funding				
A6 New Patient Pathway		C6 Financial Risks Associated with Implementing this Policy				
A7 Treatment Setting		C7 Value for Money				
A8 Coding		C8 Cost Profile				
A9 Monitoring						

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 A - Activity Impact			
A1 Current Patient Population & Demography / Growth			
A1.1 Prevalence of the disease/condition.	Over 320 different genetic forms of Primary Immune Deficiencies (PID) are described, all of which are rare. The estimated prevalence of PID in the UK is around 4500 patients. Most patients with severe combined immune deficiency (SCID) present shortly after birth and require immediate intervention, but other forms of immune deficiency may present in later childhood or adulthood. Source: Policy section 6.		
A1.2 Number of patients currently eligible for the treatment according to the proposed policy commissioning criteria.	Currently the number of eligible patients for Allo-HSCT is between 70-80 transplants per year (all ages). Eligibility is determined by disease, availability of appropriate donor and medical fitness for transplant. Source: British Society of Bone and Marrow Transplant (BSBMT) registry. Between 2013 and 2016, 60-68 people per year received Allo-HSCT for PID in the UK. These transplants were mainly in children, and a small number in adults funded via IFR based on the assessment of individual cases. The recently published interim urgent policy statement (Jan 2018) for Allo-HSCT for adult PID patients has resulted in 10 transplants per year in adults.		
A1.3 Age group for which the treatment is proposed according to the policy commissioning criteria.	Allo-HSCT for PID is already commissioned for paediatrics (18 years and under) by NHS England, this policy extends this to adults.		

A1.4 Age distribution of the patient population eligible according to the proposed policy commissioning criteria	0-65 years (patients need to be judged medically fit for Allo-HSCT). We expect the majority of adult patients will be aged 19-50 years, with rare older exceptions. Source: UK PIN Registry and BSBMT Registry. Please specify It is expected that the vast majority of Allo-HSCT for PID will continue to be performed for paediatric patients (approx. 85% of total Allo-HSCT). Adult PID patients will constitute up to 15% of total Allo-HSCT performed under this policy.		
A1.5 How is the population currently distributed geographically?	Unevenly If unevenly, estimate regional distribution by %:		
		1	1
	North	40%	
	Midlands & East	enter %	
	London	60%	
	South		
	Source: Policy Section 6 Please specify Patients 18 years and under: Currently > 90% of Allo-HSCT for PID is carried out in two centres in the Newcastle and London. It is likely the activity would remain similar with ages policy. The proposed policy recommends that Allo-HSCT for PID is performed centres with appropriate expertise after approval by the National MDT (Policy Section 10).		
	1		

A2 Future Patient Population & Demography				
A2.1 Projected changes in the disease/condition epidemiology, such as incidence or prevalence (prior to applying the new policy) in 2, 5, and 10 years?	Constant If other, Click here to enter text. Source: Policy Proposition section 6			
A2.2 Are there likely to be changes in demography of the patient population and would this impact on activity/outcomes?	No Please specify Click here to enter text. Source: Policy Proposition section 6/other			
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?	This net increase urgent policy stat activity over the r Net growth is exp I. increased patients, II. small incre	ement. Net chang next 2-5 and 10 year sected to be broadl awareness of role ease in identification	position section 3.1 dult patients covered by the current ge in Allo-HSCT above 2018-19 ars is likely to be small, 3-5 per year. By stable, any increases will be due to: e of Allo HSCT for selected adult PID on of eligible patients as a result of es and/or newborn screening for	

Are these numbers in line with ONS growth assumptions for the age specific population? If not please justify the growth assumptions made.	The average number of babies/children transplanted per year is not expected to change significantly. Yes Due to very small numbers involved ONS growth of adult population is negligible.
A3 Activity	
A3.1 What is the purpose of new policy?	 Confirm routine commissioning position of an additional new treatment Please specify Replace the urgent policy statement currently in place for adults with PID with a full commissioning policy. Develop a documented commissioning policy for the existing routinely commissioned Allo-HSCT service for PID in children. Define the subgroups of patients with PID for whom Allo-HSCT will be commissioned routinely. Reduce variation in access to Allo-HSCT for PID patients by producing an all ages policy.
A3.2 What is the annual activity associated with the existing pathway for the eligible population?	Between 2013 and 2016, 60-68 people per year in UK. Source: BSBMT database. Please specify Since the approval of the Urgent Policy Statement, an additional 10 adult patients have been transplanted since February 2018
A3.3 What is the estimated annual activity associated with the proposed policy proposition pathway for the eligible population?	70-80 Allo HSCT per year (all ages). Source: BSBMT Registry and National Adult PID BMT MDT.

	Please specify Estimates based on current activity from BSBMT database and under urgent policy statement.
A3.4 What is the estimated annual activity associated with the next best alternative comparator pathway for the eligible population? If the only alternative is the existing pathway, please state 'not applicable' and move to A4.	Not applicable as no other curative options currently available in routine clinical practice. Source: required Please specify Click here to enter text.

A4 Existing Patient Pathway

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

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

Paediatric Patients

The current standard treatment for severe combined immune deficiencies (SCID) in children (18 years and under) is Allo-HSCT. Allo-HSCT is a curative treatment for SCID, and without it no patients would survive to adolescence.

For other types of PID in children the decision to treat with Allo-HSCT is made on an individual basis. NHS England has routinely commissioned Allo-HSCT in children in accordance with the 2011 BSBMT paediatric indications table, since 1993 it has been commissioned routinely as part of the Highly Specialised Service (HSS) for Severe Combined Immunodeficiency and Related Disorders (children).

Adult Patients

The standard alternative treatments to Allo-HSCT include: immunoglobulin (IVIg) replacement therapy for patients with B cell deficits; systemic immunosuppressive therapy for patients with auto-inflammatory/immune dysregulation complications; chemotherapy for patients with PID-associated malignancies and broad spectrum

	antimicrobials (including anti-virals and anti-fungals) for all patients with susceptibility to infections. Since February 2018 an Urgent Policy Statement allowed Allo-HSCT for selected adult patients with PID. Source: Policy
A4.2. What are the current treatment access and stopping criteria?	Alternative conservative treatment is not curative and is lifelong. Stopping criteria not relevant for Allo-HSCT. Source: Policy
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?	If not known, please specify Click here to enter text. Adult Conservative PID Management a) 100% b) 0% c) 100% d) 90% e) 90% Source: estimate based on clinical experience Adult Allo-HSCT (Urgent Policy Statement) – currently 11 per year a) 100% b) 0% c) 100% d) 100% e) 100% Source: National Adult PID BMT MDT Paediatric Allo-HSCT (Highly Specialist Commissioning) – currently 60-68 per year a) 100%

	b) 0% c) 100% d) 100% e) 100% Source: estimate based on clinical experience
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: 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	No If yes, Click here to enter text. Source: required
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?	Not applicable a) b) c) d) e) Source:
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 Click here to enter text. a) 100% b) 20% c) 80% d) 80% e) 80% Source: Policy		
A6.2 Specify the nature and duration of the proposed new treatment or intervention.	Allogeneic Haematopoietic stem cell transplantation (HSCT – also known as BMT): A procedure which replaces the patient's own blood stem cells and immune system with those from a healthy donor, enabling the establishment of normal immune system functions. The patient pathway is described in detail in the BMT service specifications for adults (B04/S/a) and children (B04/S/b) respectively. For time limited treatments, specify frequency and/or duration. Click here to enter text. Source: Policy		
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: day patient		
	Acute Trust: outpatient		

	Mental Health provider: inp	atient		
	Mental Health provider: outpatient			
	Community setting			
	Homecare			
	Other			
	Please specify: Click here to enter text.			
A7.2 What is the current number of contracted providers for the	NORTH	8		
eligible population by region?	MIDLANDS & EAST	6		
	LONDON	7		
	SOUTH	4		
	must have the appropriat infrastructure to deliver a must consist of Adult and considered more approp	e level of eallo-HSCT in Paediatrical riste clinical tive HSCT MDT. When providers me	expertion this controlled PID contro	patient population which services. It may be the procedure to be e, where this is advised by is decided networking e in place, with the

A7.3 Does the proposition require a change of delivery setting or capacity requirements?	No Please specify: Click here to enter text. Source: required				
A8 Coding					
A8.1 Specify the datasets used to record the new patient pathway	Select all that apply:	ly:			
activity.	Aggregate Contract Monitoring *				
*expected to be populated for all commissioned activity	Patient level contract monitoring	\boxtimes			
	Patient level drugs dataset	\boxtimes			
	Patient level devices dataset				
	Devices supply chain reconciliation dataset				
	Secondary Usage Service (SUS+)				
	Mental Health Services DataSet (MHSDS)				
	National Return**				
	Clinical Database**				
	Other**				
	**If National Return, Clinical database or other selected, please specify: Click here to enter text.				
A8.2 Specify how the activity related to the new patient pathway will be identified.	Select all that apply:				

	OPCS v4.8		
	ICD10	\boxtimes	
	Treatment function code	\boxtimes	
	Main Speciality code		
	HRG	\boxtimes	
	SNOMED		
	Clinical coding / terming methodology used by clinical profession		
A8.3 Identification Rules for Drugs: How are drug costs captured?	Not applicable		
A8.4 Identification Rules for Devices: How are device costs captured?	Not applicable		
A8.5 Identification Rules for Activity: How are activity costs captured?	Already correctly captured by an existing space (NCBPS code within the PSS Tool NCBPS02Z BLOOD AND MARROW TRANSPL		
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 Please specify Click here to enter text.		

A9.2 Excluded Drugs and Devices (not covered by the Zero	Select all that apply:
Cost Model) For treatments which are tariff excluded drugs or devices not covered by the Zero Cost Model, specify the pharmacy or device	Drugs or Device MDS □
	Blueteq
monitoring required, for example reporting or use of prior approval systems.	Other prior approval
Systems.	Please specify: Decisions on patient treatment will be undertaken by the existing regional paediatric or national adult PID HSCT MDTs, with commissioner oversight of the governance arrangements.
A9.3 Business intelligence	<u>No</u>
Is there potential for duplicate reporting?	If yes, please specify mitigation: Click here to enter text.
A9.4 Contract monitoring	Yes
Is this part of routine contract monitoring?	If yes, please specify contract monitoring requirement: Monitored as per local arrangements for BMT contract monitoring
A9.5 Dashboard reporting	Yes
Specify whether a dashboard exists for the proposed intervention?	If yes, specify how routine performance monitoring data will be used for dashboard reporting.
	Submission to BSBMT database
	If no, will one be developed?
	Click here to enter text.
A9.6 NICE reporting Are there any directly applicable NICE or equivalent quality standards which need to be monitored in association with the new policy?	No If yes, specify how performance monitoring data will be used for this purpose. Click here to enter text.

Section B - Service Impact				
B1 Service Organisation				
B1.1 Describe how the service is currently organised? (i.e. tertiary centres, networked provision etc.)	Tertiary Allogeneic Stem Cell Source: required	Trans	plant Centres	
B1.2 Will the proposition change the way the commissioned service is organised?	No Please specify: Click here to enter text. Source: required			
B1.3 Will the proposition require a new approach to the organisation of care?	No change to delivery of car Please specify: Click here to enter text.	<u>re</u>		
B2 Geography & Access				
B2.1 Where do current referrals come from?	Select all that apply:			
	GP			
	Secondary care			
	Tertiary care	\boxtimes		
	Other			
	Please specify: Click here to enter text.	_	<u>.</u>	

B2.2 What impact will the new policy have on the sources of referral?	No impact Please specify: Click here to enter text.
B2.3 Is the new policy likely to improve equity of access?	Increase Please specify: The new policy specifically addresses equity of access to Allo-HSCT based medical indication and not age. Source: Equalities Impact Assessment
B2.4 Is the new policy likely to improve equality of access and/or outcomes?	Increase Please specify: Click here to enter text. 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 Please specify: Click here to enter text.
B3.2 Time to implementation: Is a lead-in time required prior to implementation?	No - go to B3.4 If yes, specify the likely time to implementation: Enter text
B3.3 Time to implementation: If lead-in time is required prior to implementation, will an interim plan for implementation be required?	Choose an item. If yes, outline the plan: Click here to enter text.

B3.4 ls a change in provider physical infrastructure required?	No Please spec Click here to	=		
B3.5 Is a change in provider staffing required?	No Please specify: Click here to enter text.			
B3.6 Are there new clinical dependency and/or adjacency requirements that would need to be in place?	No Please spec Click here to	•		
B3.7 Are there changes in the support services that need to be in place?	No Please spec Click here to			
B3.8 Is there a change in provider and/or inter-provider governance required? (e.g. ODN arrangements / prime contractor)	No Please spec Click here to	•		
B3.9 Is there likely to be either an increase or decrease in the number of commissioned providers? If yes, specify the current and	No change Please com	plete table:		
estimated number of providers required in each region	Region	Current no. of providers	Future State expected range	Provisional or confirmed
	North	8	8	<u>C</u>

	Midlands & East	6	6	<u>C</u>				
	London	7	7	<u>C</u>				
	South	4	4	<u>C</u>				
	Total	25	25	<u>C</u>				
	have the application deliver allo-HS and Paediatric clinically for the centre, where HSCT MDT.	mmission from spropriate level of execution of this patient of PID services. It neeprocedure to be this is advised by Where this is decent of the procedure, with	ecialised Allo-HSCT c xpertise, experience a t population which mu may be considered m e undertaken by an alt y the Combined All Ag ided networking arran n the appropriate level	nd infrastructed to the consist of consist of core appropriate appropriate appropriate HS es National gements betweet to the consistency of the consistency of the consistency of the consist of the consistency of the consis	eture to f Adult ate CT PID tween			
B3.10 Specify how revised provision will be secured by NHS England as the responsible commissioner.	Select all that				•			
Lingiana as the responsible commissioner.	Publication and notification of new policy							
	Market interv							
		selection process ovider configuration	s to secure increase or on					
	Price-based effectiveness	-	s to maximise cost					
	Any qualified	provider						
	National Cor	mmercial Agreem	ents e.g. drugs, device	, devices \square				
	Procuremen							
	Other			\boxtimes				
					-			

	Please specify: Click here 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)	No Please specify: Click here to enter text.				
Section C	- Finance Ir	mpact			
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		Not separately charged – part of local or national tariffs			
	Drugs	Excluded from tariff – pass through	\boxtimes		
		Excluded from tariff - other			
		Not separately charged – part of local or national tariffs			
	Devices	Excluded from tariff (excluding ZCM) - pass through			
		Excluded from tariff (excluding ZCM) - other			
		Via Zero Cost Model			
		Paid entirely by National Tariffs			

		Paid entirely by Local Tariffs	\boxtimes
		Partially paid by National Tariffs	
		Partially paid by Local Tariffs	
		Part/fully paid under a Block arrangement	
		Part/fully paid under Pass-Through arrangements	\boxtimes
		Part/fully paid under Other arrangements	
C1.2 Drug Costs Where not included in national or local tariffs, list each drug or combination, dosage, quantity, list 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.	Drug Costs	included in local tariffs.	
C1.3 Device Costs Where not included in national or local tariff, list each element of the excluded device, quantity, list or expected 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.	Not applica	ble.	
C1.4 Activity Costs covered by National Tariffs List all the HRG codes, HRG descriptions, national tariffs (excluding MFF), volume and other key costs (e.g. specialist top up %)	Click here t	o enter text.	

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.	The service is covered by the following national currency codes which are locally priced: SA38A Peripheral Blood Stem Cell Transplant, Allogeneic (Sibling), 19 years and over SA38B Peripheral Blood Stem Cell Transplant, Allogeneic (Sibling), 18 years and under SA39A Peripheral Blood Stem Cell Transplant, Allogeneic (Volunteer Unrelated Donor), 19 years and over SA39B Peripheral Blood Stem Cell Transplant, Allogeneic (Volunteer Unrelated Donor), 18 years and under SA40Z Peripheral Blood Stem Cell Transplant, Allogeneic (Donor Type Not Specified) The average cost of providing an adult BMT recognising the ratios of provision is £TBC.
C1.6 Other Activity Costs not covered by National or Local Tariff Include descriptions and estimates of all key costs.	Not applicable
C1.7 Are there any prior approval mechanisms required either during implementation or permanently?	Yes Please specify: Decisions on patient treatment will be undertaken by the existing regional paediatric or national adult PID HSCT MDTs, with commissioner oversight of the governance arrangements.
C2 Average Cost per Patient	
C2.1 What is the estimated cost per patient to NHS England, in years 1-5, including follow-up where required?	YR1 £TBC

	YR2	£TBC			
	YR3	£TBC			
	YR4	£TBC			
	YR5	£TBC			
Are there any changes expected in year 6-10 which would impact the model?	-	se specify: opment of nation	nal tariff for A	Allo-HSCT	
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.	TBC Please spe	ecify:			
	YR1	£TBC	7		
	YR2	£TBC	1		
	YR3	£TBC	1		
	YR4	£TBC	1		
	YR5	£TBC			
C3.2 If the budget impact on NHS England cannot be identified set	Not applica	able			

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: Cost neutral Budget impact for providers: Cost neutral Please specify: Click here to enter text.
C4.2 Taking into account responses to C3.1 and C4.1, specify the budget impact to the NHS as a whole.	TBC Please specify:
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?	No Please specify: Click here to enter text.
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 Financial Risks Associated with Implementing this Policy	
C6.1 What are the material financial risks to implementing this policy?	There is a risk that the number of people diagnosed with PID for allo-HSCT, and therefore eligible for allo-HSCT, will increase in future years due increased awareness of role of Allo HSCT for selected adult PID patients and a small increase in identification of eligible patients as a result of genome sequencing initiatives and/or newborn screening for SCID.
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 such as gene therapy coming to market in the medium term to long term whose introduction is likely to further affect the number of people treated with Allo-HSCT.
C6.3 What scenarios (differential assumptions) have been explicitly tested to generate best case, worst case and most likely total cost scenarios?	The scenarios tested were: 1. Continuing with current conservative management pathway for adults with PID and Allo-HSCT for paediatric patients with PID, or 2. Implement Allo-HSCT for a group of adults that meet commissioning criteria and continuing with Allo-HSCT for paediatrics as currently commissioned.
C6.4 What scenario has been approved and why?	Continuing with current commissioning for Allo-HSCT in paediatric patients and providing Allo-HSCT in adult patients that meet commissioning criteria. This option is more expensive in years 1-3, however overall it becomes a cost saving to NHS England due to

	reduced on-going treatment costs of serious PID in a small number of adults.	of
C7 Value for Money		
C7.1 What published evidence is available that the treatment is cost effective as evidenced in the evidence review?	There is no published evidence of cost-effectiveness Please specify: Click here to enter text.	
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	
	Please specify: Click here to enter text.	

C8 Cost Profile	
C8.1 Are there non-recurrent capital or revenue costs associated with this policy?	No If yes, specify type and range: Click here to enter text.
C8.2 If yes, confirm the source of funds to meet these costs.	Click here to enter text.

The full integrated impact assessment should be used for all clinical commissioning policies and for policy statements which are proposing a not for routine commissioning position. The rapid impact assessment template should be used for urgent policy statements and for policy statements which are proposing routine commissioning