

NHSBT Board
September 2017

NHSBT Pricing Proposals for 2018-19

- 1. Status – Public**
- 2. Executive Summary**

This paper provides a summary of the pricing proposals for NHSBT's blood components and specialist services for 2018-19. Following approval by the Board, these will be discussed with the National Commissioning Group in November 2017 with a view to implementation in 2018-19. Hospitals and the National Blood Transfusion Committee were consulted on these proposals in mid-2017.

In overall terms, the cost of providing blood to the NHS will decrease by -2.4% in 2018/19 with no increase in red cell unit prices. Taking Specialist Services into account (and associated demand increases) the total change in cost to the NHS will be -1.2% for next year.

In the longer-term, the latest demand forecast for red cells implies that the ongoing decline will continue into 2019/20 and beyond, rather than flattening as was previously assumed due to changing demographics. Managing demand at these reducing levels is creating significant supply challenges due to the unequal decline in individual blood groups. There is also a need to markedly increase Ro donor numbers to support increasing demand from patients with sickle cell disease, which will substantially increase marketing costs.

In parallel, there is a requirement to fund a series of major IT investments, the most important of which is to replace the ageing Pulse system which underpins the blood supply chain. Change on this scale is inevitably disrupting the organisation's capacity to resource further cost reduction and efficiency programmes.

Although prices can be kept flat in 2018/19, removing cost and capacity to keep pace with reducing demand is becoming significantly more challenging. There is a strong possibility, therefore, that prices may need to increase in 2019/20, particularly if demand declines further, and additional cost pressures occur from factors such as a potential 3% public sector pay rise and the uncertainty around CSM costs. Plans are currently under development to address this situation and an update will be provided in due course.

3. Action Requested

The Board is asked to approve the pricing proposals prior to the NCG meeting.

4. Purpose

4.1 Background: red blood cell and platelet demand

Demand for red cells has declined steadily over the last 5 years, driven by a combination of medical advances such as laparoscopic surgery, pharmacological developments and educational initiatives such as NHSBT's "patient blood management" programme which encourages the safe and appropriate use of blood. Publications in medical journals have also demonstrated that patients can have a better outcome when less blood is used. Despite an increase in the population over 60 years old (i.e. the age group which uses most blood), blood usage continues to decline.

Since the end of 2011/12, NHSBT has seen a 22% reduction in the demand for blood (vs forecast demand for 2017/18). In the same period, the NHS's expenditure on blood (and hence NHSBT's income) has reduced from £300m in 2011/12 to a forecasted £261m in 2017/18, while the unit price of red cells has reduced from £124.85 to £124.46 (incl. HEV testing of £2.11 per unit) despite increasing levels of safety and availability.

The latest figures are suggesting a red cell demand forecast for 2018/19 of 1.398m units. This is 4.3% lower than the plan originally agreed for this year with the NCG (1.461m units) and lower than the latest forecast of 1.434m units for 2017/18. In contrast, and after having seen a decline since late 2015, demand for platelets now appears to have stabilised at c.0.259m, which is slightly higher than the 0.256m agreed with the NCG for the current year. Demand assumptions for 2018/19 indicate that demand for platelets will continue to remain flat through next year as well.

Description	Original NCG Plan 2017/18	Revised Demand 2017/18	NCG Plan 2018/19	+ / (-) NCG Plan to Plan
Red Cells	1.461m	1.434m	1.398m	-0.063m
Platelets	0.256m	0.259m	0.259m	0.003m
Plasma Components	0.349m	0.358m	0.347m	-0.002m

NHSBT has implemented substantial cost reduction programmes (approximately £90m since 2011/12) and has a cost improvement plan of c£10m in 2017/18. The cost reductions have included the rationalisation of manufacturing and testing facilities and a reduction in blood collection capacity leading to substantial decreases in headcount. However, there is an ongoing need for significant investment to replace an ageing IT infrastructure and to replace the operational application underpinning the blood supply chain. The

ongoing provision of critical products and services is highly dependent on its successful replacement. The overall cost of this change to NHSBT will be substantial and is estimated to be in the range of £40m-£50m over 5 years.

The plan for 2018/19 has generated a cost improvement target of c. £11.5m, which combines cost pressures (those costs over which NHSBT has no control, e.g. staff grade increment increases, capital charge adjustments etc.), inflation (prospective pay award 1% and Treasury GDP Deflator 1.6%) and also lost contribution, predominantly from lower demand for red cells, which is equivalent to c£6.0m. Planned cost improvements will seek to fully address these cost pressures and allow NHSBT to maintain flat pricing for its blood components in 2018/19.

The indicative cost improvement plan for 2018/19 is likely to be derived as follows:

- Demand reduction and productivity improvements of £6.2m
- Operational and support function efficiencies of £3.4m
- Estate management and optimisation £1.2m
- Procurement £0.7m.

Category	Blood £m's	SpS £m's	Total £m's
Opening position (closing NCG position 2017/18)	260.6	58.1	318.7
2018/19 Product and Service Demand Impact	-0.3	1.4	1.2
2018/19 Cost Reduction Programme	-11.3	-0.2	-11.5
2018/19 Cost Pressures and Developments	1.6	0.8	2.4
2018/19 Inflation funding increase (Pay 1%; Non-pay 1.6%)	3.6	0.5	4.1
Total Impact	-6.4	2.5	-3.8
2018/19 Revised Position	254.2	60.7	314.8
Percentage increase / (decrease)	-2.4%	4.4%	-1.2%

4.2 Pricing: Red Cells

The proposed level of cost improvement for 2018/19 has been extensively reviewed by the Executive Team and represents a balanced approach in the context of the significant organisational challenges facing NHSBT next year, in particular the ongoing level of resource and investment which is currently being focused on Core Systems Modernisation. It is in this context that the most realistic approach would be to recommend a flat price for blood in 2018/19 (£124.46 p/unit). NHS expenditure on blood will reduce by around 2.4% next year.

4.3 Blood Component Trends and Pricing

Demand for O D negative units has flattened over the first quarter of the year at c. 12% of total demand, compared with prevalence in the donor population of 8%. Issues of this group are higher, however, and represent around 13% of total issues. This reflects the need to substitute Ro units with O D negative units. In response, plans are being developed for the recruitment of the

additional black donors that will be necessary to meet the demand, with £1m set aside in transformation funds to pay for this new activity.

Demand for group A D negative platelets continues to remain high at c. 15%, albeit that it appears to have stabilised at this level since late 2015. Meeting demand at these levels continues to be challenging and is increasing our costs. At a hospital level, there continues to be evidence of differing ordering practices. In response, we are continuing to work closely with hospitals to influence the usage of the rarer blood groups through the normal Patient Blood Management routes.

There are no plans to differentially price either O D negative red cells or A D negative platelets, given previous feedback that this would not change ordering behaviour and would be extremely unpopular with customers.

4.4 Longer term demand and pricing

Demand continues to be difficult to predict. The latest long-term planning model indicates a continued decline over the next 5 years (see below); we had previously assumed a flattening of demand in the outer years due to changing demographics, which has not occurred. There is also a risk that next year's red cell forecast could be lower still, with latest intelligence suggesting this could result in a further c33,000 unit reduction (1.365m vs 1.398m), which also impacts on the demand trajectory of the following years.

Although overall demand is declining, the supply challenges at blood group level are increasing with the differential requirement for O D negative red cells and A D negative platelets creating pressures on the supply chain. There is also the need to address the shortage of Ro donors to meet demand from patients with sickle cell disease which carries significant marketing costs.

The increasing decline in demand combined with a potential increase in costs, has major implications for NHSBT's financial situation in terms of the consequent requirement for significant cost savings. The latest red cell forecast for 2019/20 is 1.370m units. To maintain flat prices at this level of demand would require in-year savings of c£16m in addition to the £11.5m saved in 2017/18 and the £100m saved in previous years, which may be unrealistic. Removing further capacity and cost in line with the demand forecast is also particularly challenging given the need for major investments in IT, which are designed to improve the future resilience of the blood supply chain. This is a major distraction to the organisation and reduces the capacity available to undertake other initiatives and to drive further efficiency improvements. Operational efficiencies also need to be balanced with maintaining security of supply and the ability to respond if demand were to increase.

Raising red cell prices significantly is an alternative to the cost savings described above, but is unlikely to be popular with hospitals. There is also a risk that the NCG would not accept anything greater than a minor price increase given the NHS's financial situation. Discussions are ongoing with

regard to plans to address these conflicting issues in light of the revised demand forecast, and an update will be provided in due course.

In summary, although flat pricing is proposed for 2018/19, there is a likelihood that red cell prices will need to rise in 2019/20, although every effort will be made to avoid this.

Year	2016-17 actual	2017-18 forecast	2018-19 forecast	2019-20 forecast	2020-21 forecast	2021-22 forecast
Red cell issues (million)	1.522	1.434	1.398	1.370	1.343	1.319
% change vs 2016/17	-	-5.8%	-8.1%	-10.0%	-11.8%	-13.3%

4.5 Platelets collected by apheresis

For 2017/18, individual prices for platelets produced by apheresis and platelets produced by pools were introduced, to reflect the differential cost of manufacture. This aligns with our plans to rationalise production of apheresis platelets to 50% of overall supply during 2017/18. Order data on demand (as opposed to issues) for apheresis platelets imply that this is going to be at c. 30% annually. At this level, we would need to adjust the relative price for each component for 2018/19, to fully recover our costs. The differential cost of production would however, be retained in the pricing and in overall terms this realignment would be cost neutral to the NHS. It is proposed that the price of apheresis-derived platelets will be set at £231.50 compared with £185.86 for a pooled unit.

There are however, a number of hospitals which continue to order a disproportionate number of platelets collected by apheresis and will be reminded that NHSBT's clinical guidance on the use of platelets makes clear that apheresis and pooled platelets are functionally equivalent and should be used interchangeably, with the caveat that only those recipients born on or after 1st January 1996 should receive apheresis donation platelets, wherever possible.

4.6 Diagnostic and Therapeutic Services Pricing

Although every effort has been made to retain flat prices across all business units in 2018/19, we have been unable to contain a number of pressures next year. We are responding to customer demands for provision of a 24/7 service, increases to the cost of our key consumables, introduction of HEV testing and also the cost of compliance, especially ISO15189 and IVDD. The impact of these specific pressures at a business unit level will result in Red Cell Reference services, Reagents and Stem Cells each increasing by 1.5% and Tissue and Eye Services by 1.1% next year. Prices in the other business units will remain unchanged.

In line with our strategic aim of continuous growth, DTS will see an increase of £1.5m (2.6%) income during 2018/19, generating an improved contribution of £0.5m in 2018/19. At a business unit level, Therapeutic Apheresis Services will contribute £0.7m in increased sales.

5. Changes to NHSBT Transport Arrangements

In partnership with our hospitals, NHSBT continues to develop its logistics services to reflect changing working patterns, e.g. weekend working. The trend toward self-collection of blood by hospitals and its adverse impact on both the efficient management of our supply chain and reduced income from ad hoc delivery charges, resulted in the adoption of a fixed charge of £11 per order for the self-collection of blood by hospitals from NHSBT blood centres for 2017/18. The self-collect charge will be maintained in 2018-19.

There are no further logistics changes planned for 2018/19 and as a result, the “ad-hoc” and blue-light/emergency deliveries, which are currently charged at £52.15 per order, regardless of distance from the supplying blood centre and will remain unchanged for 2018/19.

6. Summary

NHSBT continues to face a challenging financial situation, with declining demand, substantial cost reduction programmes and a parallel need for investment in core systems. However, we are confident in recommending the retention of a flat price for red cells next year and that in doing so, the overall cost of blood to the NHS will continue to decline. NHSBT is also recommending that the separate prices for pooled and apheresis platelets (reflecting the different cost of production) and the “self-collect” charge are retained for 2018/19.

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**Appendix 1 – National Prices: Blood Components
For the Financial Year 2018/19**

Blood Components	Baseline National Price 2017/18	National Price 2018/19	Price Movement Post Inflation
Red Cell Components			
Standard Red Cells Other Groups	124.46	124.46	0.00
Standard Red Cell O Rh D negative	124.46	124.46	0.00
Neonatal Red Cells	52.33	52.33	0.00
Frozen Red Cells, Thawed & Washed	806.49	806.49	0.00
Red Cells for Exchange Transfusion	200.64	200.64	0.00
Large Volume Neonates & Infants	159.60	159.60	0.00
Red Cells for Intra-Uterine Transfusion	183.56	183.56	0.00
Red Cell Added Value Services			
Premium for CMV -ve Red Cells	8.98	8.98	0.00
Premium for Irradiated Red Cells	8.96	8.96	0.00
Premium for Cell Washing	124.28	124.28	0.00
Premium HLA selected red cells	129.61	129.61	0.00
Premium HPA selected red cells	129.61	129.61	0.00
Platelet Components			
Platelets (1.0 ATD) Pooled	178.19	185.86	7.67
Platelets (1.0 ATD) CD	219.30	231.50	12.20
Platelets (1.0 ATD) Rh A neg Pooled	178.19	185.86	7.67
Platelets (1.0 ATD) Rh A neg CD	219.30	231.50	12.20
Neonatal Platelets	91.04	91.04	0.00
Platelets for Intra-Uterine Transfusion	320.52	320.52	0.00
Platelet Added Value Services			
Premium for CMV -ve Platelets	8.98	8.98	0.00
Premium for Irradiated Platelets	8.96	8.96	0.00
Premium for Cell Washing	34.06	34.06	0.00
Premium for HLA Selected Platelets	244.88	244.88	0.00
Premium for HPA Selected Platelets	244.88	244.88	0.00
Plasma Components			
Clinical FFP (UK sourced)	28.46	28.46	0.00
Paediatric MBFFP (non-UK Sourced)	183.53	183.53	0.00
Neonatal MBFFP (non-UK Sourced)	51.40	51.40	0.00
Cryoprecipitate			
Cryoprecipitate (UK Sourced)	31.63	31.63	0.00
Pooled cryoprecipitate (UK Sourced)	177.55	177.55	0.00
MB Cryoprecipitate-Neonatal (non-UK Sourced)	192.99	192.99	0.00
MB Cryoprecipitate-Pooled (non-UK Sourced)	1113.45	1113.45	0.00
Other Components and Services			
Optimised Pooled Granulocyte	1127.58	1127.58	0.00
Buffy Coats	83.75	83.75	0.00
Total (£m's) [price x volume issued]	260.6	254.2	-6.4

**Appendix 2 – National Prices: Specialist Services
For the Financial Year 2018/19**

Service	NCG Baseline 2017/18 (£m's)	Cost Pressures	Cost Reduction Prog.	Price adj Fixed Cost >recovery for Growth	Pre-Inflation Sub-Total	Inflation Funding Increase	Post Inflation Sub Total Income	Percentage Price Increase / (decrease)	Growth post NCG 2017- 18	Price Adj	Volume Movement	Total Income 2018/19
TAS	6.8	0.36	0.00	-0.44	6.7	0.07	6.8	0.00%	0.81		0.72	8.3
RCI Reagents	1.6	0.07	-0.02	-0.05	1.6	0.02	1.6	1.50%	0.00		0.15	1.7
RCI Reference	13.2	0.4	0.0	-0.23	13.3	0.10	13.4	1.50%	0.12		0.17	13.7
H&I	13.8	0.08	-0.15	-0.05	13.7	0.12	13.8	0.00%	-0.15		0.16	13.8
SCI - CMT (excl CBC and ACT)	8.8	0.1	0.0	-0.1	8.9	0.08	9.0	1.50%	0.15		0.09	9.2
TES	14.0	0.1	0.0	-0.1	14.0	0.1	14.1	1.10%	-0.36		0.16	13.9
Total	58.1	1.10	-0.20	-0.90	58.1	0.51	58.6	0.87%	0.57	0.0	1.46	60.7