BI3 Automated Exchange Transfusion for Sickle Cell Care

Scheme Name	**BI3 Automated Exchange transfusion for Sickle Cell Disease Patients**
QIPP reference	QIPP 16-17 S28-B&I '17/18 QIPP reference to be added locally.
Eligible Providers	All providers of exchange transfusion for SCD
The list of providers for whom the CQUIN should be considered is as shown, with providers for whom offering this scheme is a priority asterisked.	• University College London • *Bart's Health • Birmingham Children's Hospital • Sandwell and West Birmingham • Central Manchester University Hospitals NHS Foundation Trust • Alder Hey Children's Hospital NHS Foundation Trust • South Tees Hospital NHS Foundation Trust • Newcastle upon Tyne NHS Foundation Trust • Leeds Teaching Hospitals NHS Trust • Sheffield Teaching Hospitals NHS Foundation Trust • Nottingham University Hospitals NHS Trust • University Hospitals of Leicester NHS Trust • University Hospitals Bristol NHS Foundation Trust • Oxford University Hospitals NHS Trust • *University Hospital Southampton NHS Foundation Trust (where link to London Trusts agreed)* • *Barking Havering and Redbridge University Hospitals NHS Trust • *Homerton University Hospital NHS Foundation Trust • Imperial College Healthcare NHS Trust • London North West Hospitals NHS Trust • *North Middlesex University Hospital NHS Trust • King's College Hospital NHS Foundation Trust • Guy's and St Thomas' NHS Foundation Trust • *Croydon Health Services NHS Trust • Lewisham and Greenwich NHS Foundation Trust • St George's University Hospital Trust • Whittington NHS Trust
Duration	April 2016 to March 2019.
Scheme Payment	CQUIN payment proportion [Locally Determined] each year should achieve payment of £420 per automated transfusion for all patients targeted for automated transfusion in a year – both adults and children. 2017/18 Target Value: Add locally 2018/19

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Scheme Description

Patients with sickle cell disease require exchange transfusions to manage their condition. This can be done manually or using automated exchange. This CQUIN scheme aims to incentivise the use of automated exchange by specified specialist centres in order to improve patient experience and use of clinical resources.

Implementing this CQUIN scheme may require investment in an apheresis machine if not available. Staff training will be required. Patient information will be required.

This CQUIN scheme aims to remove resource barriers to using automated exchange in order to secure best access to care for all patients for whom it is appropriate.

The payment amount is determined by the targeted number of patients requiring exchange transfusion each quarter, with a £420 payment per automated transfusion. Target is 95% of all transfusion patients.

When calculating the number of transfusions likely in a year, account should be taken of any lead in time if a new machine must be acquired, and a norm of 8 ½ transfusions per year per patient. The £420 payment is appropriate for both adults and children.

For example, a provider anticipating 40 patients requiring transfusion, and expecting to give 95% of them automated transfusions the CQUIN target payment would be
38 patients x 8.5 Transfusions x £420 = £135,660

Measures & Payment Triggers

1. Numerator. % of Patients with sickle cell disease requiring exchange transfusion (according to the agreed assumptions, noting the 95% target) who receive this via automated exchange

2. Improvement. % receiving automated exchange increases in each quarter relative to that achieved on average in 2015/16.

Partial Achievement Rules

Payment in each quarter is conditional upon Trigger 2 (improvement relative to base year) being achieved.

If trigger 2 is achieved, payment is proportional to achievement of Trigger 1, i.e. the number of automated transfusions achieved as a proportion of the total number of transfusions targeted, with a cap of 100%.

In Year Payment Phasing & Profiling

Front-loading of payment could be considered to help defray costs of capital equipment required.

Rationale for Inclusion

Appropriate use of automated exchange for patients with sickle cell disease (SCD) requiring exchange transfusion for the prevention of strokes etc
Desired outcome

- Greater use of automated exchange transfusion
- Reduced complications of SCD
- Reduced cost of chelation treatment
- Improved patient access and experience

NICE Guidance shows Automated Exchange to be cost effective in terms of staff resource, bed day usage and chelation therapy	
Data Sources, Frequency and Responsibility for collection and reporting	
With effect from April 1st 2017 OPCS 4.8 will be introduced and will include changes regarding the identification of automated red cell exchange in patients with sickle cell disease. In order to differentiate between manual and automated exchange, from this date the clinical coding standards will state that all exchange transfusions classified at X32 (Exchange blood transfusion) and the extended category X47 (Other exchange blood transfusion), use a subsidiary code for extracorporeal circulation NEC (Y73.2) if the exchange is automated. **Providers need to use the mandated coding to evidence achievement of CQUIN**	
Baseline period/ date & Value	Baseline data will be available through a national audit and via Peer Review
Final indicator period/date (on which payment is based) & Value	As above
Final indicator reporting date	Month 12 Contract Flex reporting date as per contract
CQUIN Exit Route *How will the change including any performance requirements be sustained once the CQUIN indicator has been retired?*	Using the CQUIN to fund automated exchange is a holding solution pending the development of an appropriate payment mechanism, e.g. through the introduction of payments under the new code through tariff.

Supporting Guidance and References

Sickle cell disease (SCD) is the most common serious genetic disorder in England and affects 1 in 2000 live births, or 350 babies a year (NHS Screening Programmes 2010). Although the disease can vary in severity, all patients experience acute episodes of extreme pain that can have a negative effect on quality of life. For people with more severe forms of SCD, tissue damage can lead to organ failure and stroke. Life expectancy is considerably reduced at 45–55 years.

BSH guidance sets out requirements for exchange transfusion.

National Haemoglobinopathy Register includes data on SCD and requirements for exchange transfusion

Cost implications are mainly related to:

- Machine purchase if not available – the depreciation and maintenance costs
- Offset reduction in staff time
- Staff training if not available
- Blood product use

Overtime should be offset against other costs and avoided

Where a new machine is needed it should be confirmed as part of early discussions in the planning round, and in any event before 23rd December 2016, to ensure full year achievement of improvement is feasible