## IM4 Complex Device Optimisation

<table>
<thead>
<tr>
<th>Scheme Name</th>
<th>IM4 Complex Cardiac Implantable Electronic Devices (CIED) Optimisation</th>
</tr>
</thead>
</table>

### Section A. SUMMARY of SCHEME

<table>
<thead>
<tr>
<th>QIPP Reference</th>
<th>[Add locally]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>April 2017 to March 2019</td>
</tr>
</tbody>
</table>

### Problem to be addressed

Complex implantable cardiac devices comprise of Implantable Cardioverter Defibrillators (ICD) and Cardiac Resynchronisation Therapy (CRT) devices. The latter are further subdivided into devices incorporating a defibrillator (CRT-D) and those incorporating a pacemaker (CRT-P).

Given appropriate patient selection, complex devices can reduce risk of sudden death, improve quality of life and improve the prognosis in patients with heart disease. Clinical decision making around device selection varies between implanting units and may impact on clinical outcomes as well as inflating the overall cost of the complex devices.

The staffing establishment of cardiology departments involved in implanting complex cardiac devices varies across NHS England which impacts on the effectiveness of MDT decision making, results in variation of device programming and outpatient follow-up arrangements as well as on-call cover for related emergencies.

### Change sought

This scheme seeks to promote:

- Enhancement and maintenance of local governance systems to ensure compliance with national policies and specifications;

- Development of sub-regional network policies to encourage best practice when determining device choice including minimum standards for patient consent to ensure optimal device selection.

- To improve timely access to all patients who need referral for consideration of complex device implantation.

- To ensure that referral pathways and robust MDT decision making processes are developed for complex and clinically unusual cases, revisions and lead extractions.

This scheme seeks to ensure that device selection for patients remains consistent with the commissioning policy, service specification, and relevant NICE guidance and that contractual requirement are in place for providers while new national procurement and supply chain arrangements are embedded.

Considerable improvements in the NHS’s purchasing efficiency for high cost tariff excluded devices have been forecast from the centralisation of procurement and supply chain arrangements.

Additional stretch to this scheme (Part B) will be offered to providers who wish to participate in
the national devices work programme to optimise the clinical care and value by transforming service provision and improving clinical effectiveness cost effectiveness and clinical safety across a geographical area. This CQUIN scheme supports creation of the infrastructure, governance and partnership-working across a number of healthcare providers working in heart rhythm and heart failure networks to achieve the following outcomes:

- Improvements in engagement of patients in decision making for device selection and also enhanced supportive care.
- That the service is consistent with NICE guidance TA 314 and that the introductions of any new clinical treatments have been shown to be congruous with the NICE TA.
- Those clinical and cost effective treatments to improve outcomes are planned through multi-disciplinary team treatment plans, delivered throughout a clinical network of care.
- Enhanced data collection to ensure individual patient data capture and demonstrate the effectiveness and equity of this way of working and access to new commissioned treatments to patients in the future
- Service oversight and consolidation where this is appropriate
- The consistent adoption and spread of effective technologies (and decommissioning of out-moded technologies)
- Clinical streamlining to ensure a consistent approach to complex heart rhythm management
- Inform the device category range to be covered by the centralised supply chain

The part B section (stretch-variant) of this scheme seeks to describe a system leadership approach to the management of complex device implantation across a clinical network and will be available for selected providers.

Section B. CONTRACT SPECIFIC INFORMATION (for guidance on completion, see corresponding boxes in sections C below)

<table>
<thead>
<tr>
<th>B1. Provider (see Section C1 for applicability rules)</th>
<th>Insert name of provider --</th>
</tr>
</thead>
<tbody>
<tr>
<td>What was or will be the first Year of Scheme for this provider, and how many years are covered by this contract? (See Section C2 for other provider-specific parameters that need to be set out for this scheme.)</td>
<td></td>
</tr>
<tr>
<td>B3. Scheme Target Payment (see Section C3 for rules to determine target payment)</td>
<td>Full compliance with this CQUIN scheme should achieve payment of: [set sum £s following the Setting Target Payment guide in section C3 for setting target payment according to the scale of service and the stretch set for the specific provider.] Part A Compliance and supporting clinical effectiveness. Full compliance with this CQUIN scheme should</td>
</tr>
</tbody>
</table>

¹ I.e. scheme was contracted for first implementation in 2016/17 (as GE4 Optimal Device scheme), and this template is setting out requirements for 2⁰th (and perhaps 3⁰th) year of scheme.
achieve payment of:
[Add locally, following C3 guide]

Part B
Governance and partnership working:
Target Value: £100k [Delete if not applicable]

B4. Payment Triggers.
The Triggers, and the proportion of the target payment that each trigger determines, and any partial payment rules, for each year of the scheme are set out in Section C4.

Relevant provider-specific information is set out in this table.

[Adjust table as required for this scheme – or delete if no provider-specific Trigger information is required.]

<table>
<thead>
<tr>
<th>Provider specific triggers</th>
<th>2017/18</th>
<th>2018/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger 1: Baseline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trigger 1: Stretch level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trigger 2: Baseline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trigger 2 stretch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trigger 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trigger 3 stretch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trigger 4</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Trigger 4 stretch</td>
<td>[Add rows to match C4 requirements.]</td>
<td></td>
</tr>
</tbody>
</table>

B5. Information Requirements
Obligations under the scheme to report against achievement of the Triggers, to enable benchmarking, and to facilitate evaluation, are as set out in Section C5.

Final indicator reporting date for each year. Month 12 Contract Flex reporting date as per contract. [Vary if necessary.]

B6. In Year Payment Phasing & Profiling
Default arrangement: half payment of target CQUIN payment each month, reconciliation end of
each year depending upon achievement.

[Specify variation of this approach if required]
For Part B, suggested:
For each year:

- Q1 50% of proposed part B payment for upfront funding
- Q4 50% of proposed part B payment on satisfactory provision of required evidence.

Section C. SCHEME SPECIFICATION GUIDE

C1. Applicable Providers

<table>
<thead>
<tr>
<th>Nature of Adoption Ambition:</th>
<th>FOR UNIVERSAL UPTAKE SCHEME: Part A</th>
<th>FOR Selective UPTAKE SCHEME: Part B</th>
</tr>
</thead>
</table>

**FOR UNIVERSAL UPTAKE SCHEME:**
Acute providers that implant High Cost Tariff Excluded cardiac devices with aggregate cost of at least £500,000 per annum.

**For part B, (Stretch) of the scheme:**
Selected providers who mutually agree with NHS England to undertake the required role. *Centres bidding for the additional stretch element of the scheme should be based in a geographical network, cover a wide range of referral pathways for complex and non-complex specialised heart failure/ specialised heart rhythm services. The centre should be able to demonstrate that they are able to provide specialist advice on complex device decision making either through current MDT processes or via an agreed access/referral route. Centres should provide a sufficient implant volume to demonstrate centre and clinician expertise which avoids occasional practice and provides expertise and support to the Complex Cardiac Devices MDT. Centres should also be commissioned to deliver a complex electrophysiology and ablation service and should be able to provide 24/7 on-call for heart rhythm management issues, including device therapy. Many of these centres will be participating in post graduate training for cardiology SpRs, Specialist Nurses and Cardiac Physiologists and also providing dedicated cardiac rehabilitation and psychological support.*

Appendix A : sets this out in more detail

C2. Provider Specific Parameters
For Part A this is applicable to all commissioned providers of complex device Therapy.

Whether Part B is included as well as Part A.

C3. Calculating the Target Payment for a Provider

The target overall payment for this scheme (the payment if the requirements of the scheme are fully met, to be set in Section B3 above) should be calculated for each provider, according to the following algorithm:

Part A: 2% of high-cost cardiac device expenditure subject to a minimum of £40,000.
Part B: £100,000

2017/18:
Before contract, providers must select with the agreement of commissioners whether they are committing to Part A only or Part A and Part B.

See Section D3 for the justification of the targeted payment, including justification of the costing of the scheme, which will underpin the payment.

C4. Payment Triggers and Partial Achievement Rules

Payment Triggers
The interventions or achievements required for payment under this CQUIN scheme are as follows:

Part A

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>2017/18</th>
<th>2018/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger 1: Q1 Presentation of network policies and process for implementation</td>
<td>Q1 Presentation of network policies and process for implementation and audit which should include: Demonstration of compliance against the quality matrix developed from the national service specification (A05) and the BHRS standards to support and allow the commissioners to audit and monitor clinical quality and support clinical assurance.</td>
<td>Q1 Implementation of locally agreed MDT framework (for selected cases) and standards of access and the use of a decision making process.</td>
</tr>
<tr>
<td>and audit which should include: Demonstration of compliance against the quality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>matrix developed from the national service specification (A05) and the BHRS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>standards to support and allow the commissioners to audit and monitor clinical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>quality and support clinical assurance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trigger 2</td>
<td>Q2 Baseline for implementation audit and agreed trajectories for delivery against the standards. Measure device selection against patient indication for optimal</td>
<td>Q2 Audit of device usage against the decision making framework and MDT standards.</td>
</tr>
</tbody>
</table>
patient specific outcomes. (NICOR/CCAD) audit data submitted on ¼ly basis and Blue-teq form.  

<table>
<thead>
<tr>
<th>Trigger 3</th>
<th>Q3 Commence regular audit and review of device complications. Shadow implementation of Blue-teq form for all complex cardiac devices.</th>
<th>Q3 Audit of device usage against the decision making framework and MDT standards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger 4</td>
<td>Q4. Confirm evidence submitted during Q1 of compliance against the specification standards and where necessary reasoning for variance and action plan for improvement. Agree the timelines and implementation plan for year 2 with commissioners to include specific improving value schemes which can be either local or national.</td>
<td>Q4 Audit of device usage against the decision making framework and MDT standards.</td>
</tr>
</tbody>
</table>

Part B (Selected providers only)

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>2017/18</th>
<th>2018/19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trigger 1:</strong></td>
<td>Q1 a) Development of a working group for this CQUIN scheme including providers across the clinical network led by the Part B provider, mapping patient pathways and producing a plan to improve partnership working, clinical governance, operational protocols, education and the improvement of pathways. Referral arrangements. Arrangements for revisions and extractions b) Establishment of partnerships which involve providers, commissioners, public health colleagues and patients.</td>
<td>Q1 Review implant rates and performance against previous commissioned activity and performance and support the planning process to inform the planning round in line with any QIPP priorities. Review pathways for revisions and extractions.</td>
</tr>
</tbody>
</table>
| **Trigger 2** | Q2 c) Baseline report including agreed arrangements by all partners; governance arrangements; network | Support as necessary:
  * Service consolidation – where this is appropriate. |
footprint map including CCG boundaries and provider partners; current baseline of pathways and services; gaps in service provision; populations in line with policy / NICE guidance; evidence of appropriate administrative arrangements to enable data reporting.

d) Engagement plan for regional/sector network, patients and CCG stakeholders.

e) Pathway Mapping Group established (membership confirmed, schedule of meetings).

Trigger 3

| Q4 f) Dataset reporting arrangements for all partners clarified and implementation begins. | Measure device selection against patient indication for optimal patient specific outcomes. (NICOR/CCAD) audit data submitted on ¼ly basis and Blue-teq form. Report submitted to commissioners. |

**Percentages of Target Payment per Payment Trigger**
The following tables sets out the proportion of the Target payment that is payable on achievement of each of the Payment Triggers, respectively for Part A and Part B payments.

**Part A**

<table>
<thead>
<tr>
<th>Percentages of Target Payment per Trigger</th>
<th>2017/18</th>
<th>2018/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger 1</td>
<td>20%</td>
<td>25%</td>
</tr>
<tr>
<td>Trigger 2</td>
<td>15%</td>
<td>25%</td>
</tr>
<tr>
<td>Trigger 3</td>
<td>15%</td>
<td>25%</td>
</tr>
<tr>
<td>Trigger 4</td>
<td>50%</td>
<td>25%</td>
</tr>
</tbody>
</table>
Part B

<table>
<thead>
<tr>
<th>Percentages of Target Payment per Trigger</th>
<th>2017/18</th>
<th>2018/19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger 1</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Trigger 2</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Trigger 3</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Partial achievement rules
All are in All-or-nothing.

Definitions
Not applicable

C5. Information Flows: for benchmarking, for evaluation, and for reporting against the triggers.
Required information flows to be developed by the Part B providers, covering the following issues as required:
- Information for Benchmarking
- Information for Evaluation
- Information Governance
- Reporting of Achievement against Triggers
- Reporting Template requirement

C6. Supporting Guidance and References

NHS England Service Specification Implantable cardiac defibrillators and CRT therapy

NICE TA 314 Implantable cardioverter defibrillators and cardiac resynchronisation therapy for arrhythmias and heart failure - [https://www.nice.org.uk/guidance/ta314](https://www.nice.org.uk/guidance/ta314)

Section D. SCHEME JUSTIFICATION
D1. Evidence and Rationale for Inclusion

Evidence Supporting Intervention Sought
This CQUIN seeks to provide a level of clinical input to drive clinical improvements in the patient pathway, support clinical decision making by agreeing network, clinical arrangements for referral and transfer of all categories of cases. This will promote improved access to specialised assessment, patient selection, review and long term surveillance in a timely, cost-effective way and reduce variation. Improvements will be expected for elective and non-elective pathways.

Part B which will be agreed through a bidding process requires specialised centres to provide a network clinical leadership and Lead Provider/s role within a geographical location (expected across usual referral pathways).

Rationale of Use of CQUIN incentive
The improvement in practice yields savings to commissioners that justify funding providers’ costs.

D2. Setting Scheme Duration and Exit Route

Two years support should be sufficient to embed better practice as routine.

D3. Justification of Size of Target Payment

The scheme is a development of the GE4 Optimal Device CQUIN scheme. In negotiation of implementation of that scheme, it was apparent that the costs required to improve practice had been underestimated. A higher guide reimbursement has been adopted. The evidence of variation is such that the higher cost is justified.

D4. Evaluation

Evaluation
Not proposed for this scheme.

Appendix A

Centre requirements for the part B of the complex device CQUIN this is provided over and above the minimum standards set out for all device implant centres

- Centres should be able to demonstrate the appropriate training and expertise in complex device therapy. Each centre should implant a minimum of 60 complex devices (80 preferable), Two implanting clinicians who undertake at least 30 new complex device implants per year.

- Centres should be able to show evidence that they are able to provide 24hour/7 day per week follow up and support post implantation.

- Access to specialised Echocardiography for optimisation of complex device therapy for heart failure patients.
- Be part of a specialised electrophysiology service for the management of atrial and ventricular arrhythmias.

- Be able to demonstrate regular MDT working and decision making in particular in regard to assessment for suitability of device therapy for rare conditions e.g. Brugada syndrome, congenital long QT syndrome and specialised heart failure services for the assessment for suitability of CRT therapy.

- Be complaint with the co-location and interdependency standards for this service including being interdependent with cardiac MRI, cardiac surgery and interventional cardiology services for the consideration of complex device therapy as adjunct to revascularisation.

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