##

## 2019/20 PSS CQUIN Scheme

## Indicator Template

## *[Section B to be completed before insertion in contracts.]*

## PSS12 Enabling Thrombectomy (v1 published 19 March 2019)

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| Indicator Name | ***Enabling Thrombectomy, Interventional Neuroradiology Training***  |
| 1. **SUMMARY of Indicator**
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| Indicator sponsor (with email address) | *Jacquie Kemp**jacquiekemp@nhs.net* |
| Improving Value Reference | *N/A* |
| Duration | Four years |
| CCG Complementarity | *N/A* |
| **Problem to be addressed (maximum 150 words):*****[****Briefly characterise the shortfall in quality or efficiency that the indicator is designed to address; detailed evidence should be placed in section D1****]*** There is currently an insufficient number of trained staff for comprehensive provision of a 24/7 thrombectomy service across England. This means that patients will not have access to this life changing intervention and access is already geographically variable across the country. Each region has developed plans for Thrombectomy centres and regional roll out is well established. There is a need to develop an additional 3-4 Thrombectomy centres nationally to assure geographical coverage.Plans must be cognisant of clinical recruitment and training capacity as outlined in the service specification. There is a national shortage of the specialists who are needed to undertake the procedure and approximately 60 more neurointerventionalists are required over the next 3-5 years to deliver a geographical service. There are currently 24 trainees who will qualify in the next year, assuming that half stay in England once training is completed. Without this scheme, this still leaves a gap of over 50 specialists. |
| **Change sought** *[Specify what change in behaviour is sought in general terms, with detailed specification set out in section C4****.]*** New training programmes are being developed between NHS England, the Royal College of Radiologists, Health Education England and General Medical Council to enable an increase in numbers of neuro-interventional radiologists.The first of these is now published on the RCR website. This is for current interventional radiologists who want to become neuro interventionists. Uptake has been restricted. To rectify this, national support via this CQUIN indicator is essential to increase the number of specialists who can perform thrombectomy and to increase patient access to thrombectomy (currently very restricted). This training is currently online and available for IRs.The second training programme is part of credentialing being undertaken by the GMCA submission has been made to develop a package for other interested consultants who wish to complete a GMC accredited training programme for Neurointervention. By implementing credentialing through regional and in house approved training programmes, there will be a national standard for these essential staff that will link to their recognised medical qualifications. It is anticipated that this training will be based on achieving a number of procedures rather than a time-based qualification. This is anticipated to take approximately 2 years but could be sooner where there is sufficient access to the intervention.There is also the potential for fellowships. International fellowships are available for up to a one-year placement. There are 24 neuroscience centres all of whom are developing thrombectomy services. The proposal is that within each region there are training centres (ten in all or a network of training providers agreed locally) that support the rotational training of interventional radiologists to undertake interventional neuroradiology training or other GMC registered qualified consultants to enter the credential training programme. Applications for training can be received from appropriate staff working in either the training specialised centre or nonspecialised centres where the responsible Trust supports the application. The training centre will hold and provide the back fill to these non-specialised centres.Once GMC credentialing is agreed, professionals other than consultant Interventional radiologists will be able to access the two year training. The credential for other qualified professionals is anticipated in spring 2019. |
| 1. **CONTRACT SPECIFIC INFORMATION** *(for completion locally, using guidance in sections C below)*
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| **B1.Provider** (see Section C1 for applicability rules) | *[Insert name of provider]* |
| **B2. Provider Specific Duration.** What will be the first Year of Indicator for this provider, and how many years are covered by this contract? | 2019/20 2020/21 2021/22 *[Adjust locally]*One/two/threeyears *[Adjust locally]* |
| **B3.Indicator Target Payment** (see Section C3 for rules to determine target payment) | Full compliance with this CQUIN indicator should achieve payment of: Target Value: *[Add locally ££s]* |
| **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 indicator are set out in Section C4.Relevant provider-specific variation, if any, is set out in this table.*[Adjust table as required for this indicator – or delete if no provider-specific information is required.]*

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| **Provider specific triggers** | **2019/20** | **2nd 3rd year** |
| **Trigger 1:** |  |  |
| **Trigger 2:** |  |  |
| **Trigger 3:** |  |  |
| **Trigger 4:** |  |  |

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| **B5. Information Requirements** |
| **Obligations under the indicator 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]* |

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| **C. INDICATOR SPECIFICATION GUIDE: STEP CHANGE INDICATORS** |
| **C1. Applicable Providers** |
| **Nature of Adoption Ambition*:***  | There are 24 neuroscience centres all of whom are developing thrombectomy services. Of these, ten will be designated as credential training centres for the IR-INR training or the credential programme, 2-3 centres per region – to provide regional coverage. Regions will select the centres based on their thrombectomy and other neurointerventional interventions activity and ability to deliver the training on top of other established INR training programmes.The training described within this CQUIN is separate and different to the current professional training for IR and INR. Plans for future funding will be discussed beyond the CQUIN and for future years. |
| **List of Providers to which Indicator is Applicable** | *There are 24 neuroscience centres in England who are developing the service and 22 of these centres have a service and should be encouraged to participate.* ***Ten*** *will lead on the provision of this training programme.* ***Regional teams should establish enough capacity through this credential to offer geographical access to training. This could be based in any of the listed neuroscience centres and could be jointly shared between several regional networked centres, with one centre acting as the host to the CQUIN and sharing the CQUIN resource; but must be allocated and agreed to allow for regional cover to this extra training programme.******The centres are:****RF4 BARKING, HAVERING AND REDBRIDGE UNIVERSITY HOSPITALS NHS TRUST* *RNJ BARTS AND THE LONDON NHS TRUST*  *RXH BRIGHTON AND SUSSEX UNIVERSITY HOSPITALS NHS TRUST*  *RGT CAMBRIDGE UNIVERSITY HOSPITALS NHS FOUNDATION TRUST*  *RWA HULL AND EAST YORKSHIRE HOSPITALS NHS TRUST*  *RYJ IMPERIAL COLLEGE HEALTHCARE NHS TRUST*  *RJZ KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST*  *RXN LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST*  *RR8 LEEDS TEACHING HOSPITALS NHS TRUST*  *RVJ NORTH BRISTOL NHS TRUST*  *RX1 NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST* *RTH OXFORD RADCLIFFE HOSPITALS NHS TRUST*  *RK9 PLYMOUTH HOSPITALS NHS TRUST*  *RM3 SALFORD ROYAL NHS FOUNDATION TRUST* *RHQ SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST* *RHM SOUTHAMPTON UNIVERSITY HOSPITALS NHS TRUST* *RJ7 ST GEORGE'S HEALTHCARE NHS TRUST*  *RTD THE NEWCASTLE UPON TYNE HOSPITALS NHS FOUNDATION TRUST* *RET THE WALTON CENTRE NHS FOUNDATION TRUST* *RRV UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST* *RRK UNIVERSITY HOSPITAL BIRMINGHAM NHS FOUNDATION TRUST* *RJE UNIVERSITY HOSPITAL OF NORTH STAFFORDSHIRE NHS TRUST*  |
| **C2. Provider Specific Parameters** |
| **The indicator requires the following parameters to be set for each provider in advance of contract, in order to determine precisely what is required of each provider, and/or to determine appropriate target payment (as per C3.)** | The nominated training centres still need to be identified to offer best coverage for the regions.Centres must follow the recognised and accredited training scheme through the royal college of radiologists (for IRs-INRs) or GMCCredential for other qualified professionals. |
| **C3. Calculating the Target Payment for a Provider**  |
| **The target overall payment for this indicator (the payment if the requirements of the indicator are fully met, to be set in Section B3 above) should be calculated for each provider, according to the following algorithm:** Year 1.£300,000 per annum for 10 training centres or regional networked training centres, based on two trainees completing training over two years.First year target payment applies when an applicant has successfully been recruited by the Trust to complete the 18months to 2 years training.Sum should be adjusted pro rata with higher or lower recruitment. Year Two: second year payment as in year 1 to provide the second of two years training per trainee. (2 trainees over circa two years course)Year Three: As in year 2 but may be another trainee or completion for a current trainee depending on start date (i.e up to 3 trainees over two years and phased if capacity allows)**See Section D3 for the justification of the targeted payment, including justification of the costing of the indicator, which will underpin the payment.** |
| **C4. Payment Triggers and Partial Achievement Rules** |
| **Payment Triggers****The interventions or achievements required for payment under this CQUIN indicator are as follows:**

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| **Descriptions** | **First Year of indicator** | **Second/ Year** | **Third year**  |
| **Trigger 1:** | Recruited either: One trainee recruited and started for either IR-INR training (RCR recognised) or one trainee for the national GMC credential for GMC registered consultant to credential training to achieve neurointerventional credential. | Second year of training for first year trainees; with trainee committed to completing second year or part year (depending on previous qualification and experience) training. Or recruitment of additional trainee. | Second year of training for second year trainees. |
| **Trigger 2** | **Backfill payment for first trainee** **transferred to parent hospital of trainee, (or parent department if trainee is internal)** | **Backfill payment for first trainee transferred to parent hospital or department** | **Backfill payment for first trainee transferred to parent hospital or department** |
| **Trigger 3** | Recruited either: 2nd trainee recruited and started for either IR-INR training (RCR recognised) or one trainee for the national GMC credential for GMC registered consultant to credential training to achieve neurointerventional credential. | Second year of training for (2nd) first year trainee. Trainee committed to completing second year or part year (depending on previous qualification and experience) training. Or recruitment of further trainee. | Second year of training for second year trainees. |
| **Trigger 4** | **Backfill payment for second trainee transferred to parent hospital or department** | **Backfill payment for second trainee transferred to parent hospital or department** | **Backfill payment for second trainee transferred to parent hospital or department** |

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| **Percentages of Target Payment per Payment Trigger****The following table sets out the proportion of the Target payment that is payable on achievement of each of the Payment Triggers.**

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| **Percentages of Target Payment per Trigger** | **First Year of indicator** | **Second, Third Year** |
| **Trigger 1** | 25% | 25%  |
| **Trigger 2** | 25% | 25%  |
| **Trigger 3** | 25% | 25%  |
| **Trigger 4** | 25% | 25%  |
| **TOTAL** | 100% | 100% |

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| **Partial achievement rules****All payments should be pro rata to the proportion of a training year during which a trainee is in post and back-filled.** |
| **Definitions** |
| **C5. Information Flows: for benchmarking, for evaluation, and for reporting against the triggers.**  |
| Evidence of consultants in training to be provided.Date and time of commencement of training.Anticipated completion.Detail on qualification and backgroundDetail on registry to RCR training programme (either through IR-INR training or credential)Employing Trust and evidence of backfill payment |
| **Reporting of Achievement against Triggers:** |
| **Credential achievement against set goals and objectives (RCR, GMC)** |
| **Information for Benchmarking:** |
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| **Information Governance:** |
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| **Reporting Template requirement:** |
| **Training must be overseen and monitored through the professional body, in this case the RCR** |
| **C6. Supporting Guidance and References** |
| **Further details on implementation, and references to documents that will support implementation:**See D1 |

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| **D. Indicator Justification and Evaluation** |
| **D1. Evidence and Rationale for Inclusion**  |
| **Evidence Supporting Intervention Sought**The benefit of this intervention derives from the enablement of the five-year thrombectomy roll-out goal to which NHS England is committed. This is separately set out – see references below.Training needed to deliver service priorities is the responsibility of trusts and HEE rather than of NHS E commissioners. This CQUIN is designed to facilitate and expedite roll-out.In brief, the evidence for the cost-effectiveness of thrombectomy relates to the need for rapid treatment: the benefit from mechanical thrombectomy falls by 5.3% for every hour of delay. The percentage that can be expected to be independent declines from 50% for thrombectomy within 3 hours to 45% at 4.5 hours, to 40% at 6 hours and to 33% by 8 hours, even with a favourable advanced brain imaging profile in the patients treated beyond 6 hour.Seven trials examined the effects of mechanical thrombectomy on patients who were functioning independently prior to their stroke. All reported strongly positive findings, with the proportion of people who could function independently at 90 days following stroke increasing by between 19-35%. All trials also examined the safety of the mechanical thrombectomy, usually by monitoring total mortality and the probability of an intracranial haemorrhage. None of the trials showed a significant excess of either of these outcomes compared with best medical treatment.Every 4 to 6 patients undergoing thrombectomy following stroke, one more will be able to function independently at 90 days, compared to those that receive thrombolysis alone.Geographic specifics. Improving inequalities in care.***References list:****2018. Clinical Commissioning Policy Proposition: Mechanical Thrombectomy for acute ischaemic stroke,* NHS England*.*  [*https://www.england.nhs.uk/publication/clinical-commissioning-policy-mechanical-thrombectomy-for-acute-ischaemic-stroke-all-ages/*](https://www.england.nhs.uk/publication/clinical-commissioning-policy-mechanical-thrombectomy-for-acute-ischaemic-stroke-all-ages/)National Institute for Health and Care Excellence, *Medtech innovation briefing: Mechanical Thrombectomy devices for acute ischemic stroke**Service Specification Neurointerventional services for acute Ischaemic & Haemorrhagic stroke,* NHS England. <https://www.england.nhs.uk/publication/service-specification-neurointerventional-services-for-acute-ischaemic-haemorrhagic-stroke/> |
| **Rationale of Use of CQUIN incentive****CQUIN as an instrument is justified if net costs beyond normal service requirements are incurred by providers whilst benefits and cost savings accrue to patients and commissioners.**This indicator is justified by the contribution it makes to Thrombectomy services. It is justified therefore by the cost-benefit calculations supporting the planned roll-out of these services, which are summarised here.**Indicator Costs**By 2023/24 total (gross) costs to NHS England of Mechanical Thrombectomy are estimated to be £104m per year, based on a full roll out to 8,000 patients per annum – the number estimated to be eligible for Thrombectomy (From commissioning plan Apr 17)Average cost per patient per year: £13,885**Benefits of Scheme:**Indications of scale of value to be created – patient benefit or cost-savings (to commissioner or to provider)The most significant benefit of this proposal is improved access for patients to this intervention and the improved health outcome for the patient. Thrombectomy for large vessel ischaemic stroke has been demonstrated in to be one of the most powerful treatments in any field of medicine. With patient’s outcomes and ongoing lifestyle improved dramatically.This scheme will support the roll out of Thrombectomy services and allow providers to network training opportunities to increase and improve the workforce, a key block to the uptake of this intervention.Adoption of service specification, which includes 24/7 service, will help to reduce inequalities between patients. Will improve equality as access to new procedure will allow improved geographical access and improve access for those higher risk people living in areas of deprivation. NHSE has committed to spending £104million annually on thrombectomy by year 5. If roll out is successful this provides significant savings for CCGs within CCG commissioned stroke centres, with an estimated benefit of £6 million in year 1, and £67 million by year 6. Other significant cost saving within neuro rehabilitation, community and social care. Further cost benefit will accrue to Local Authorities with lifetime reductions in care costs.Economic studies highlighting that the use of Mechanical Thrombectomy devices in conjunction with intravenous thrombolysis was more cost effective than intravenous thrombolysis used on its own*.* |
| **D2. Indicator Duration and Exit Route** |
| **The appropriate duration of an indicator depends upon how long CQUIN support is required before the change in behaviour sought can be embedded in services specification or otherwise.****N/A** |
| **D3. Justification of Size of Target Payment** |
| **The evidence and assumptions upon which the target payment was based, so as to ensure payment of at least 150% of average costs (net of any savings or reimbursements under other mechanisms), is as follows:**All centres must have or work towards sufficient clinicians with appropriate competencies to be able to provide a 24/7 service (an extended hour 7 day service may be acceptable whilst working towards full 24/7 provision.) To this end, each centre will need back fill funding of £50,000 per trainee (calculated as 0.5 wte midpoint consultant salary incl on costs) to allow the trainee to observe interventions and complete training packages agreed by the Royal College of radiologists. This payment should be made by the training centre to the trainee employing trust. Training budget for the centre providing the training £50,000 (calculated as 0.5 wte midpoint consultant salary as above) allocated to the training centre for each trainee for training and supervision.Each trainee therefore will incur costs of 2 x £50,000If an overseas fellowship is taken by a trainee then full backfill will be provided to allow the trainee to be released for a period of 6 months to one year. (£50,000 which reflects the HEE allocation for additional training programmes).It is anticipated that each training centre can train 2 personnel each year.CQUIN premium adds a further £ **100,000.**Total CQUIN payment per training centre: £300,000 |
| **D4. Evaluation: Approach, data and resources** |
| **Evaluation Approach:** Evaluation of training nor required. |
| **Information for Evaluation** |  |
| **Resources for Evaluatoin** |  |