South East Clinical Senate

Kent, Surrey and Sussex

South East Clinical senate

Review of the pre-Consultation Business Case for Stroke Services

For West Sussex CCG

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Foreword

The regional clinical senates were established to provide strategic, independent, clinical advice to commissioners and health systems, to help them make the best decisions about health care for the populations they are responsible for. NHS England also strongly recommends a clinical senate review of major service change proposals before they go out to public consultation. In that light, the South East Clinical Senate (Kent, Surrey and Sussex) was asked by the West Sussex System to review the draft pre-consultation business case (PCBC) for the West Sussex Stroke Transformation Programme.

A multi-disciplinary independent clinical review panel of health and care professionals with a wide range of expertise and experience, including specialist stroke healthcare professionals, was brought together by the Clinical Senate to review the draft PCBC. Following this the Clinical Senate have produced a range of recommendations for how the PCBC could be improved and strengthened prior to public consultation.

We would like to thank the West Sussex team for taking time to present the proposals to the panel and field their questions. We would particularly also like to thank all the members of the clinical senate panel for giving of their own time to participate in this review.

Finally, a thank you to the support team of the clinical senate for coordinating the review and bringing the report together.

Paul Stevens,
South East Clinical Senate, Kent Surrey Sussex Chair

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1. Introduction and context of the improving stroke services in West Sussex proposals

Stroke is a preventable and treatable disease; however, it is one of the leading causes of death in the UK and the largest single cause of severe disability. One in eight strokes are fatal within the first 30 days, with one in four strokes fatal within a year[1]. Stroke is a major health problem in the UK, with over 100,000 people having a stroke in the UK every year, with many more experiencing the warning condition of a transient ischaemic attack (TIA). The latest 5 year average age-standardised mortality rate for stroke is 61.7 deaths per 100,000 and 1.2 million stroke survivors have significant disabilities[2]. Across the coastal area of West Sussex in 2019/20, there were 989 Stroke recorded admissions on the Sentinel Stroke National Audit Programme (SSNAP); if nothing is done, this number could rise to 1446 over a similar period. Complete 2021/22 SSNAP data is awaited but July-September 2021 data now publicly available indicates 260 stroke admissions during that 3 month period to the 2 West Sussex acute stroke units, Worthing and St Richard's Hospital (SRH) Chichester.

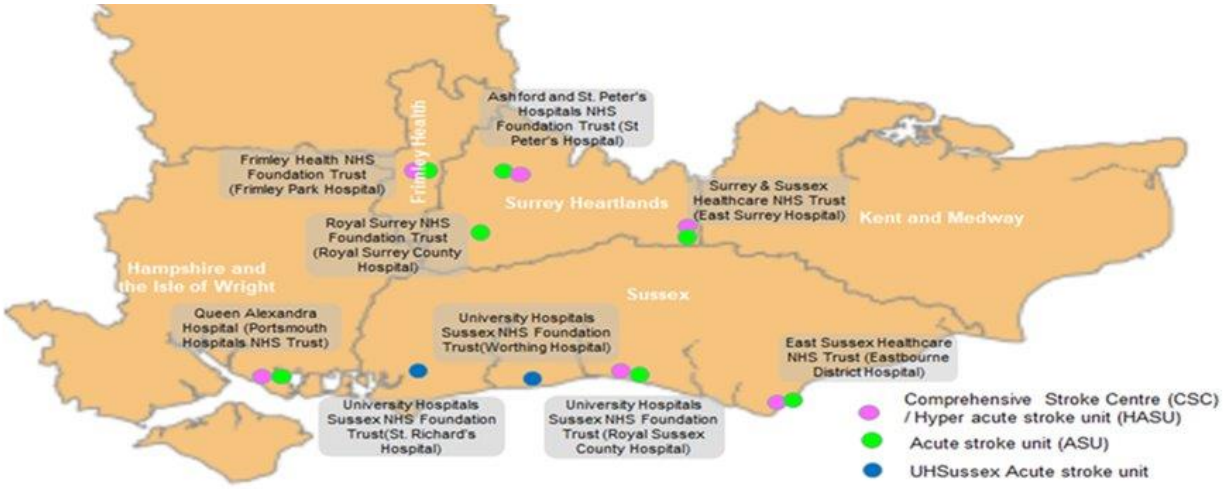


Fig.1 Location of Stroke Services across the South East

There is strong evidence that investigations and interventions for stroke, such as brain scanning and thrombolysis, are best delivered as part of a 24/7 networked service that includes comprehensive and acute stroke centres (CSC, ASC) of sufficient size to ensure expertise, time critical treatments, efficiency and a sustainable workforce[3]. The Case for Change describes the coastal area of West Sussex and its borders together with a description of the population

[1] Stroke Association (2018) State of the Nation: stroke_association_annual_report_2018.pdf Stroke statistics (online). Available at: Stroke statistics | Stroke Association

[2] Monthly mortality analysis, England and Wales - Office for National Statistics (ons.gov.uk)

[3] national-stroke-service-model-integrated-stroke-delivery-networks-may-2021.pdf (england.nhs.uk)

demographics and projections for the future. The coastal West Sussex area is predominantly rural and includes the Chichester, Arun, Worthing and Adur districts (figure 2). The population is just over 0.5 million 25% of whom were aged ≥65 years in March 2018. Ninety-two percent of the population are from a white ethnic group and 52% of the population are female. The greatest population densities are found along the coast.

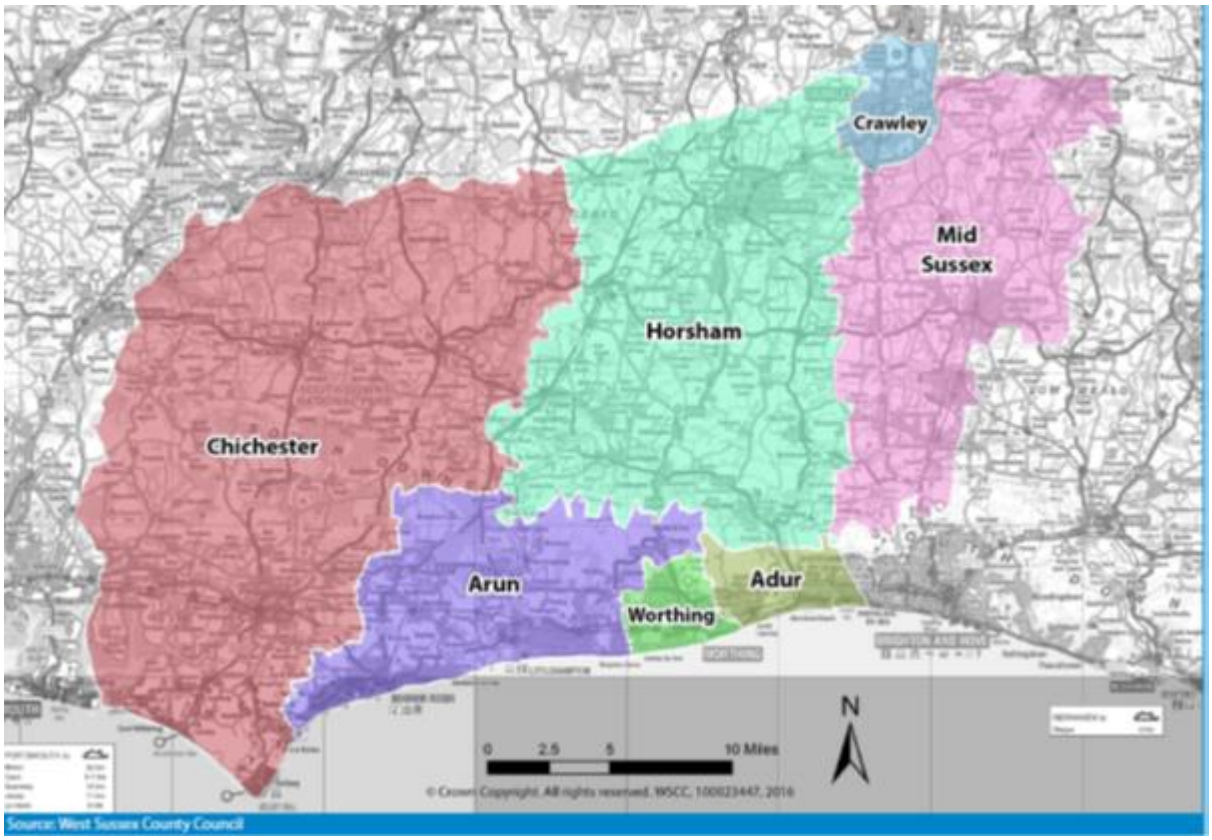


Fig.2 West Sussex Districts

Key drivers for change

A review of the stroke services at Worthing and St Richard's Hospitals identified a number of areas where the service is not currently meeting national standards. These are:

- The staffing levels within the current stroke wards do not meet the standards expected in an ASC for provision of a 24/7 acute and hyper acute stroke care.
- Consultant on-site review is not available 7 days per week.
- TIA services (including therapy) are provided 5 days per week and not 7 days per week.
- Some aspects of their services, such as proportion of patients admitted to Stroke Ward within 4 hours and ensuring thrombolysis given within 60 minutes, require improvement.

- The National Clinical Director for Stroke has cited 600 patients per annum as a minimum number for ASC/CSCs. Individually both units see below 600 patients per annum.
- There is a lack of access to early supported discharge and stroke survivor 6 month reviews.

The aim of the West Sussex Stroke Transformation programme is to ensure the end to end pathway across West Sussex offers high quality stroke care; evidenced by being fully compliant with national standards, to achieve high levels of performance enabling delivery of improved outcomes for patients.

Following pre consultation engagement, options development and appraisal workshops to identify and consider a longlist of possible options for the future provision of stroke services were undertaken. The options presented for consideration where:

- **Option 1 - Do nothing at Worthing and St Richard's Chichester** – continue running both sites as they are now
- **Option 2 – Set up Acute Stroke Centres at both Worthing and St Richard's Chichester** - upgrade the units at both Worthing and St Richard's to ASCs.
- **Option 3a – Set up ASC at Worthing, acute care at St Richard's Chichester** - upgrade the unit at Worthing to an ASC and post hyper-acute care at St Richard's.
- **Option 3b – Set up ASC at Worthing, Rehabilitation only at St Richard's Chichester** - upgrade the unit at Worthing to an ASC and Rehabilitation services only for stroke patients in Chichester, whether acute, community or home-based.
- **Option 4a – Set up ASC at St Richard's Chichester, acute care at Worthing** - upgrade the unit at St Richard's to an ASC and post hyper-acute care at Worthing.
- **Option 4b – Set up ASC at St Richard's Chichester, Rehabilitation only in Worthing** - upgrade the unit at St Richard's to an ASC and Rehabilitation services only for stroke patients in Worthing, whether acute, community or home-based.

The above options were evaluated against the following appraisal criteria:

- Patient - Clinical
- Patient – Accessibility
- People - Sustainability
- People – Workforce specification
- Quality
- Sustainability – Financial
- Sustainability- Environmental
- Systems and Partnership

Following completion of this process options 1 and 2 were rejected. Options 3a, 3b, 4a and 4b were then subject to more detailed analysis considering how well each option met the evaluation criteria for each of the following sub-domains (fully, partially or not met):

- Improving patient experience
- Improving early supported discharge, appropriate rehabilitation and therapy support
- Accessibility and improving health inequalities
- Meeting workforce specifications
- Delivering a sustainable workforce solution
- Meeting regional and integrated stroke delivery network specifications and guidance
- Improving clinical outcomes and meeting latest clinical specifications
- Meeting SSNAP and 7 day working standards
- Meeting up front financial cost criteria
- Demonstrates financial sustainability
- Meets criteria for environmental sustainability
- Delivers the required changes within a reasonable implementation period
- Delivers minimum recommended activity levels
- Meets criteria for System and Partnership working with minimal or no impact on other providers and acceptability to any other stakeholders

After completion of this process Option 4B was recommended to be taken forward for public consultation as the preferred Acute Stroke Model for West Sussex.

In considering these options the NHS England and Improvement South East Clinical Senate has been requested to undertake an independent clinical review of the proposal and evidence presented; to evaluate the proposals alongside the case for change; to detail recommendations to support commissioners to finalise the pre consultation business case (PCBC); and to evaluate the proposals in terms of future services being accessible and continuing to meet the needs of the patient population to ensure any inequality issues would be suitably mitigated.

2. Review methodology

The panel membership is listed in Appendix D. Great care was taken to ensure that all panel member's declarations of interest and confidentiality agreements were valid.

The initial documentation supplied for this review was, a draft PCBC together with appendices and accompanying information (listed in Appendix C).

The PCBC, additional resources and Key Lines of Enquiry (KLOEs) were shared with the Clinical Senate review panel on 16th February 2022.

A half day panel meeting was held on 2nd March 2022. Members of the West Sussex CCG (see Appendix E) presented a summary of the proposed stroke services transformation and options and took detailed questions from the panel. The second half of the panel meeting was for the clinical senate review panel alone to consider their response and recommendations. The full agenda for the panel is shown in Appendix D.

The notes from the meeting and comments were synthesised into a first draft, which was circulated for the panel to comment. The final draft was then prepared for submission to West Sussex CCG for matters of accuracy on 25th March 2022, and for review, comment then sign off by the clinical senate council.

3. Key Recommendations

The commitment to implement an improved stroke service for the coastal area of West Sussex is to be commended. In particular the commissioning of an early supported discharge (ESD) service which will bring significant benefits for people experiencing stroke disease in the area. The South East Clinical Senate panel recommendations should be seen as an adjunct to, and not detract from, the significant work undertaken to date to develop and drive the reconfiguration and transformation ambition.

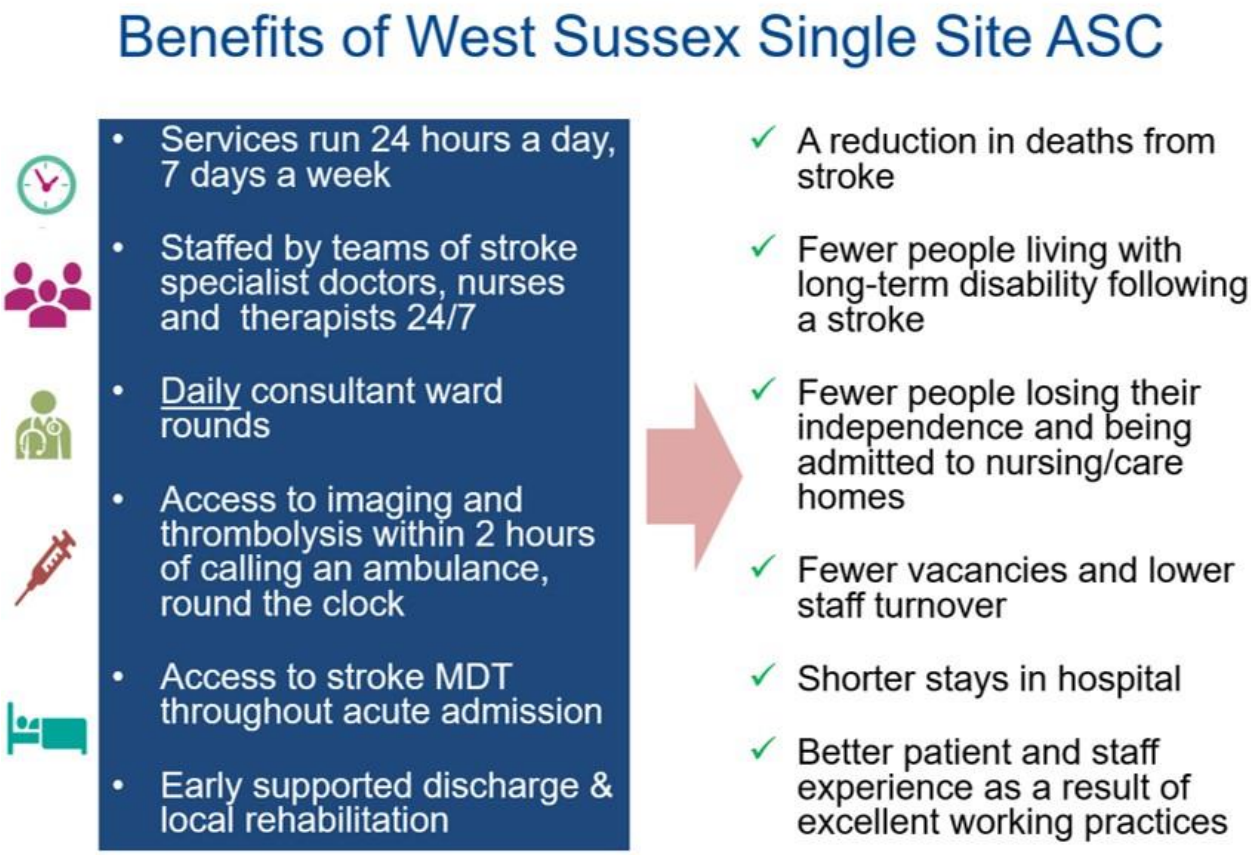
The clinical evidence test

The PCBC requires a compelling reason to reconfigure services for the options presented. How best to present the shortlisted options within the PCBC should be reconsidered. At present it does not contain a persuasive narrative in order to meet the NHS England and Improvement clinical evidence base for reconfiguration. Whilst the panel understood the basic principles that the transformation proposal is trying to tackle, in particular concerns over 7 day working and the numbers of patients treated on the current units at St Richard's and Worthing, this may be at the

expense of compromising a strength (the Worthing unit performance) to solve a weakness. The panel were also unclear if the staffing implications had been fully worked through.

The content and presentation of the PCBC

The PCBC is narrative heavy. While the case for change arguments are sound, the benefits for a single site ASC need drawing out early in the document. The use of pictograms as a clear visual aid demonstrating the key changes and how they translate into quality outcomes of the reconfigured service in the executive summary is recommended. For example:



Further information detailing how the reconfiguration benefits will be measured is recommended. Overall, there is a need for more evidence based, quantifiable outcomes relating information on performance indicators, mortality, quality outcomes, patient experience case studies, workforce data and staff experience.

The PCBC needs to navigate the reader more clearly through the document to ensure understanding. There are several things that would greatly assist this process.

- Tables and accompanying narrative need to align to aid understanding of what is being presented.
- There is an excess of information which detracts from the message being conveyed. For example, the methodology behind SSNAP does not need describing in full but could be referenced and/or be added to the appendices.
- Consistent nomenclature when referring to sites is essential. For example, the Royal Sussex County Hospital is referred to as the Royal Sussex County, Brighton Hospital, University Hospital Sussex and Brighton and University Hospitals NHS Trust. It would also be helpful for those not familiar with the area to state the geographical location of the hospital as is consistently done with St Richard's Hospital, Chichester.
- Use of current nomenclature. Tables detailing current and required staffing use the old nomenclature of Hyper Acute Stroke Units (HASU).
- The PCBC would benefit from a greater use of pictorial representation of data. For example, using postcode data of stroke admissions, a map showing accessibility to stroke centres within an hour of ambulance call currently and with the options under consideration would benefit understanding. Good use of visual clues could also significantly reduce the narrative, for example Table 51 on page 158 very clearly shows where an option does not meet evaluation criteria and where it only partially meets those criteria. There are several pages of narrative explaining this which could be put in an appendix to the PCBC. Similarly, there is a detailed description of the model in sections 11.6 and 11.7 that requires reading to learn that each of the standards/quality improvements in stroke care will be met. This could be shown in tabular form with a simple green tick, for example:

Service Model	
All patients admitted for acute phase care (<72 hours) complete their entire admission on site	✓
All patient admitted with suspected stroke seen by a consultant-led team	✓
All patient with suspected stroke admitted directly to the stroke unit	✓
7-day one stop TIA clinics, 7-day thrombolysis calls & liaison service for GPs & A&E	✓
7-day carotid imaging and MR/CT head scanning	✓
Thrombolysis	
24/7 service for eligible patients providing thrombolysis within 60 minutes of admission for all patient with 24/7 access to perfusion brain imaging and AI analysis	✓
etc	

Patient pathways

The PCBC describes the options for the reconfiguration of stroke services in the coastal area of West Sussex with a focus on the acute service pathway. The ambition of the NHS Long Term Plan (LTP)[4] is for care to be properly joined-up and occur at the right time in the optimal setting. The success of an acute stroke pathway relies in part on prevention (less people presenting with stroke into the system) and critically on discharge and rehabilitation pathways to enable stroke survivors to move effortlessly to the next stage of their care, thus enabling new patients presenting with stroke to receive timely access to appropriate treatment. The detail with regards to the whole stroke pathway, patient flow and bed modelling both within the ASC, but also to the CSCs at the Royal Sussex County Hospital (RSCH), Brighton and the University Hospital Southampton (UHS) require significant strengthening in the PCBC, particularly with regards to patient pathways at RSCH and rehabilitation and access to appropriate therapies across the piece.

The additional flow of Worthing patients into Brighton under the preferred option was a source of concern for the panel. Brighton's emergency flow has been compromised for years and the issues

[4] nhs-long-term-plan-june-2019.pdf (longtermplan.nhs.uk)

are not purely a consequence of COVID-19, elective backlogs or rising medically fit for discharge numbers. Brighton achieve 50% for the emergency department 4 hour standard, have a 98% bed occupancy and around 30% of their patients wait more than 4 hours from a decision to admit to admission. In this context it is therefore not surprising that stroke patients – without direct access to the stroke unit – only reach the unit within 4 hours of arrival 10% of the time. An additional 300 strokes per annum will add further stress to an already challenged system. The PCBC needs to provide assurance that the increased number of stroke patients at Brighton will continue to have access to time critical interventions such as thrombolysis and thrombectomy, without unnecessary delay in such a difficult clinical environment.

Workforce

The plans have an ambitious implementation timeline of early 2023 requiring considerable additions to the specialist workforce. There is also an assumption that nurses and junior therapists from Worthing will move with the Worthing stroke beds. Experience in London and Kent & Medway stroke reconfigurations does not support this. This workforce component of the PCBC requires more explicit description and alignment with workforce strategies for recruitment and retention and training. Aligned timelines will increase confidence in the planning of the modelling.

4. General themes

5.1 Vision and purpose

R1. The case for change and PCBC set out the need for the coastal area of West Sussex to be brought in line with national standards. The case for the centralisation of services onto a single site would have more relevance to stakeholders if outcomes, such as numbers of lives saved, reduction of patients with severe disability and reduced lengths of stay in an acute hospital were clearly described and quantifiable.

R2. SSNAP outcomes cover a limited timeframe for Worthing and SRH, Chichester and do not presently include the national optimal stroke imaging pathway or TIA services. More data for RSCH needs to be included, particularly given the increased flow of patients following the proposed transformation. The strength of the Worthing SSNAP performance and how that will translate to SRH needs to be articulated in the PCBC.

5.2 Stroke pathway projections and modelling

R3. Currently the PCBC details incident modelling 2% growth in activity based on ONS growth figures until 2026. There needs to be a longer projected assessment of predicted stroke, TIA and stroke mimic modelling, we would recommend at least 10 years. A detailed demand versus capacity model that shows the effective growth by site in each of the options would add clarity and underpin all the modelling (beds, workforce, financial etc) and the sustainability of the options.

R3.1 Overall, more detail is required that clearly articulates the understanding of future service requirements for the end-to-end stroke pathway (from prevention through to life after stroke and end of life care). This needs to include prevention impact, self-presenters, TIA (non-admitted), inpatients on non-acute sites and redirected mimic activity. Recommendations for specific pathways of TIAs, stroke mimics, thrombolysis and thrombectomy are detailed below.

5.3 Bed modelling and Length of Stay (LOS)

R4. Effective discharge pathways and clear plans for ongoing care and rehabilitation are key to minimising LOS. The PCBC includes information on a 1.5 day and 4.9 day reduction in LOS. Modelling assumptions regarding the effect of prevention, rehabilitation beds and discharge pathways on LOS require more detail. For example, the projected initial 1.5 LOS reduction has not addressed issues of social care which was acknowledged to be a challenge during panel discussions. The panel heard about an integrated discharge team and 'home first' model. More detail in the PCBC on how these will contribute to patient flow would be helpful.

R4.1 The PCBC would benefit from a bed model 'bridge' by site that shows the site to site transfers and the impacts of the model of care changes on the bed numbers (up and down) giving a pictorial demonstration of the benefits of reconfiguration from the baseline start-point.

R4.2 The predicted 1.5 day LOS efficiency is based on ESD services. Currently rehabilitation pathways 2, 3, and 4 are reliant upon external resource availability. There is a potential risk that a single site acute service has less ability to absorb patients with a delayed transfer of care, resulting in decreased access for hyper acute stroke care. The panel heard there were mitigations both for SRH and RSCH. The PCBC would benefit from having this mitigation clearly articulated.

R4.3 Bed occupancy rate is modelled on 90% occupancy. Is this achievable, what are the current bed occupancy levels?

R4.4 More detail is required with regards to bed modelling that considers both current and future stroke need, bed usage and occupancy rates, potential inpatient efficiencies, TIA admissions, impact upon coadjacent beds and support services of stroke mimics. We heard during the panel meeting that admitted stroke mimics were included in the bed modelling which is positive. However, we also heard that stroke beds are not ring fenced. What plans will be in place for stroke capacity issues?

R4.5 The projected bed modelling is dependent on delivering an effective preventative health programme for the known stroke risk factors. The Senate notes a Local Commissioned Service (LSC) has now been commissioned for primary care management of people with Atrial Fibrillation (AF). It is not clear how the prevention activity flows into the potential average LOS reductions. More detail is required in the PCBC about the outcomes of the preventative programmes in place.

R4.6 Effective discharge pathways and clear plans for rehabilitation and residual care needs are also key to reducing LOS. The Senate recommend the West Sussex stroke programme include data from the newly commissioned ESD service as soon as possible. This is a huge gap in the current provision and the benefits stated in the PCBC are therefore theoretical and some practical lived experience of the (potentially very major) difference such a service would make could be very helpful and enable learning opportunities with regards to patient care, staff recruitment and retention and effect on current discharge pathways.

R4.7 The PCBC does not articulate clearly the reasons for the loss of one bed in the 4.9 LOS reduction in option 4b. What are the anticipated impacts, risks and mitigations for this?

5.4 TIA pathways

R5. The TIA pathway requires more in depth modelling taking into account capacity for imaging and cardiac investigations and activity beyond admissions. Currently modelling gives an impression of low numbers due to the inclusion of admitted TIA patients only. Presently there is insufficient information detailing how the national guidance for seeing patients presenting with TIA will be achieved. On panel day a hybrid management model was referred to, but it is unclear what this would mean in practice.

R5.1 Activity modelling has been drawn from SSNAP which is reliant upon accurate data collection manually inputted against identified stroke activity. Triangulating this with validated hospital coded data (ICD-10) maybe valuable for checking reliability.

5.5 Stroke mimic patients: patient pathways and impact on the ASC

R6. There is limited information with regard to the patient pathway for stroke mimics. More information is required on the pathway for patients who do not directly access stroke services and for the assessment of stroke mimics, the flow through the hospital, fast tracking of patients to avoid the Emergency Department and repatriation in order to better understand the impact on the ASC.

R6.1 The effective use of telemedicine for stroke mimics was recognised. The Senate understand the future provision of telemedicine is not yet detailed. The PCBC would benefit from detailing how and when this is to be implemented. For more comments on telemedicine see under digital and innovations.

5.6 Travel times and thrombolysis

R7. Travel times between sites are not very clearly articulated and require more detailing, although additional journey times are clear. There is reference to partnership working and a SECAmb report, but little data provided on the impact of the options on ambulance cycle times or the numbers of inter-hospital (incorrectly referred to as *intra-hospital transfer* throughout the PCBC) secondary transfers. These will be influenced by the percentage of walk-in patients to both EDs, those patients requiring transfer for thrombectomy and also patients developing strokes during the course of unrelated admissions (which may be in a site without an ASC/CSC). These data will be important as SECAmb will need additional resources to undertake the transfers.

R7.1 In addition, more data will be needed on whether thrombectomy is undertaken in UHS or entirely at RSCH. The transfer time and distance from Chichester to UHS is significantly less and more straight forward than the journey to RSCH, however as UHS is outside of West Sussex this will add to SECAmb cycle-times which requires careful consideration. Data is also required on projected repatriation numbers as this will impact on patient transport services which the South Central Ambulance Service (SCAS) provides in Sussex.

R7.2 The ambulance transfer times to both current acute stroke unit sites are short, and it is projected that the reconfiguration will add circa 15 minutes to travel times. Adding a map with 15/30/45/60 minute isochrones would be helpful to demonstrate travel times to and from SRH, Chichester and Worthing sites (that also includes UHS/RSCH) would be beneficial in enabling understanding of the impact.

R7.3 The PCBC states that thrombolysis will be provided 24/7 for all the proposed options. With recognition that patients should be scanned, assessed by a stroke specialist, and receive thrombolysis within 60 minutes and ideally within 20 minutes of admission. There is evidence of engagement with SECAmb regarding initial journey times. However, there is no secondary transfer modelling either from the non-stroke site (Worthing) to the ASC or from ASC to CSC for thrombectomy and/or neurosurgery. The senate recommends these to be modelled further involving detailed discussion with SECAmb. The senate panel understood that the system is absolutely unable to support taking patients to Portsmouth (who have also made it very clear that they have do not have the capacity to accept these extra patients) which would leave some patients in the Chichester area with very long travel times to Worthing (50 minutes +) in Options 3a and 3b. Explicitly stating this would strengthen the choice of Option 4b as the preferred option.

R7.4 It would be helpful to include current Thrombolysis performance, such as percentage of patients accessing service and door to needle time, quality improvement and outcomes to date and expected future improvements under the new model. Including any risk to patents not directly accessing stroke services. Being able to demonstrate such outcomes is helpful when increasing travel times to receiving units.

R7.5 A letter of support from SECAmb Executive (and other stakeholders in addition to those already included) confirming their involvement with the clinical/financial modelling and their support will help secure the required support.

5.7 Thrombectomy pathway and stroke imaging pathway

R8. Mechanical thrombectomy is now a well-established treatment for stroke. With advances in technology there is the potential for the need for thrombectomy to increase well beyond the current quoted figure of 10%. It would be advantageous for modelling to take account of current advances to ensure future sustainability of the service. Modelling needs also to include expected service requirements and activity and flows including repatriation. The Senate panel heard how the service modelling did not solely concern the numbers of patients and pathways must ensure that the right patients for scanning are chosen at the front door; there is currently no evidence to support this in the PCBC. Advice from an independent interventional radiologist expert on what the thrombectomy service might need to look like in 12-24 months would be very helpful.

R9. A more detailed analysis of adherence to the national optimal stroke imaging pathway is needed. The move to a 24/7 service will increase access required to imaging (CT/CTA/CTP/MRI). The panel heard that increased provision for scanning equipment is being made. Further information regarding imaging capacity (availability and speed at which imaging can be done) on stroke sites and timely access would be a useful inclusion to support the changes.

R9.1 Thrombolysis and thrombectomy can be successful guided by CT Perfusion (CTP) for up to 24 hours post-stroke for 'wake -up' strokes. Has the impact of the increase in thrombolysis and thrombectomy referrals with provision of CTP and prolonging the treatment window been considered?

R9.2 Access to carotid endarterectomy is mentioned in the PCBC and is currently the preferred option for symptomatic carotid stenosis, however carotid artery stenting may be the recommended treatment in the future. What provision has been made for this?

R9.3 The potential impacts of increased requirements for infection control procedures following the COVID-19 pandemic and the impact this will have on additional time for cleaning scanning facilities have not been considered. The current data the system has regarding this should be incorporated into activity modelling.

R9.4 The PCBC discusses the use of Brainomix as an imaging tool. The Senate heard that Worthing, St Richard's and RSCH hospitals went live in April 2021 with Brainomix and how it has improved the quality of reporting and increased the number of CT angiography's (CTA) performed. Southampton Hospital currently uses Rapid for which there is a workaround for transferring data which has not been a significant issue. The ability to send images across the system to enhance care in this way should be highlighted.

5.8 Discharge and rehabilitation pathways

R10. Although this PCBC makes reference to the whole stroke pathway and the introduction of the recently commissioned ESD pathway is a significant addition, the main focus is on the acute aspects of the stroke service. Vocational rehab is a core focus of the National Stroke Service Model yet features little in the rehabilitation section of the PBCB. Work to clarify how rehabilitation services are structured is required and a clear implementation timeline is necessary. Bringing some of the information from appendix 5 'Building a Rehabilitation Mandate for Sussex' into the main PCBC narrative would assist with this.

R10.1 There is no reference to video fluoroscopy (VF) sessions which would be a key element of the stroke service. Concentrating the service onto one site would impact on the workforce and availability of VF rooms and imaging equipment. There is also little information regarding the percutaneous enterogastrendoscopic gastrostomy (PEG) service. It is important this service is flexible and available at least 5 days a week. What plans are in place for these key parts of the service?

R10.2 The following aspects of the service would benefit from greater clarity in the PCBC.

- The Long Term Conditions Programme paper (p3) in the table of 'Long Term Plan – stroke commitments' promises fully implemented improved post hospital stroke rehabilitation models by 2029. This is significantly beyond other timelines quoted, is it correct?
- Strengthening and vision around the rehabilitation beds at Worthing Hospital.
- The wider Sussex rehabilitation mandate referred to on panel day and the implications for workforce and the opportunities for integrated working this may provide.
- The integration of pathways, for example neurology and stroke teams and the sharing of information to avoid the patient's having to repeat themselves.

- The focus upon telehealth and self-management could be explored in greater detail.
- Exploration of different ways to provide the pathway for therapy at home such as group work and telerehabilitation, as described in the national service model for an integrated community stroke service.[5]
- Details regarding the ongoing support and information for family and carers along the pathway.
- The life after stroke service says all patients with a residual impairment will be referred every six months. This would be an excellent service, what is the impact of this on the current service?
- End of life care provision is not included in the PCBC. What plans are there for this?

5.9 Prevention

R11. The panel heard that the coastal area of west Sussex is performing well with regards to diagnosing Atrial Fibrillation (AF) (currently 86%) and have an ambition to have more than 90% patients diagnosed with AF anticoagulated. However, there is limited evidence of cardiovascular disease (CVD) prevention strategies aside from AF. Further detail on the management of hypertension and the treatment of stroke risks would be beneficial. AF prevalence in West Sussex is higher due to the older population of coastal west Sussex. Use of prevention data would assist in the planning of services. The tables below give the 2021 CVD prevent picture for identification of stroke risks in adults and treatment of those risks.

[5] stroke-integrated-community-service-february-2022.pdf (england.nhs.uk)

Identification of Stroke Risks in Adults 18+

Risk	WS	Sussex	England	WS 60-79	WS 80+
AF	2.9	2.6	2.3	4.9 v. 4.9	16.4 v. 16.9
CKD	4.0	3.9	3.8	6.4 v. 7.6	24.4 v. 28.9
Hypertension	16.7	16.9	15.9	32.5 v. 36.4	50.9 v. 57.0
Familial HC	1.1	1.8	1.8	-	-

AF = atrial fibrillation; CKD = chronic kidney disease G3a -5;
HC = hypercholesterolaemia; WS = West Sussex
All data expressed as percentages, comparisons v. England

Source: Quality Improvement | CVDPREVENT

Treatment of Stroke Risks in Adults 18+

Risk	WS	Sussex	England	WS 60-79	WS 80+
AF high risk	86.3	88.6	87.9	87.0 v. 88.9	86.1 v. 87.5
CKD + statin	70.5	75.6	74.3	72.5 v. 76.5	73.5 v. 77.8
CVD + statin	91.2	93.4	92.9	93.3 v. 94.9	90.4 v. 93.0
BP ≤ 140/90	40.6	46.0	46.1	42.9 v. 49.0	-
BP ≤ 150/90	52.2	57.3	57.5	-	52.2 v. 57.5

AF = atrial fibrillation; CKD = chronic kidney disease;
BP = blood pressure; WS = West Sussex
All data expressed as percentages, comparisons v. England

Source: Quality Improvement | CVDPREVENT

5. Review of presented options

On the evidence presented in the PCBC it is difficult to determine the difference between each of the options presented. The generic nature of the options makes it difficult to assess the quantifiable impact.

6.1 Projected acute stroke activity within each option

R12. Within option 1, do nothing at Worthing and SRH Chichester, there is the recognition that both Worthing and SRH, Chichester are well performing stroke units in certain areas. However, both units do not meet the SSNAP requirements consistently. The introduction of ESD, which is now commissioned, would improve the overall picture of this option and system may wish to review the evidence.

6.2 Relationship between the CSC, ASC and non ASC hospitals

Presently insufficient information regarding the flows of patients, repatriation of patients to the receiving hospital and overall patient pathways exist in the PCBC. There is no detail in the PCBC regarding remote stroke advice for suspected strokes; repatriation pathways; or management of patients with a stroke mimic. Access to stroke services and timely management for inpatients on non-acute sites should be detailed in the PCBC and include, self-presenters, stroke chameleons and inpatients.

Queen Alexandra Portsmouth

R13. Option 3a set up an ASC at Worthing with acute care at SRH and option 3b set up an ASC at Worthing, with rehabilitation in the Chichester area, whether acute, community or home-based were rejected owing to the increased pressure this would put on the Queen Alexandra Hospital (QAH) in Portsmouth. There is a letter to this effect from the QAH. The Senate panel agree that the additional patient volumes would be unmanageable currently at the QAH. However, it is noted in a previous senate review of proposal for future stroke services in Sussex in 2015[6], Worthing was a preferred site. Should system's plans evolve with reconfiguration of patient pathways to bypass the ED and patients to be conveyed straight from ambulance to scan and then onwards to the stroke ward the system may wish to revisit these options.

[6] South East Clinical Senate Review of Proposals for Future Stroke Services in Sussex. December 2015 https://secsenate.nhs.uk/wp-content/uploads/2020/07/South-East-Clinical-Senate-Review-of-proposals-for-future-stroke-services-in-Sussex-Dec-2015-FINAL.pdf

Royal Sussex County Hospital, Brighton

R14. Option 4a, set up an ASC at SRH Chichester with acute care at Worthing and option 4b, set up an ASC at SRH Chichester, with rehabilitation in the Worthing area, whether acute, community or home-based are heavily reliant on RSCH, Brighton. Plans to refurbish ED at RSCH and open additional capacity through the move to the new 3Ts building are undoubtedly welcomed however the RSCH under the current proposals is to receive an additional 300 patients. There is little information in the PCBC regarding the patient pathway at RSCH, its current performance or its outcomes and how the additional numbers may impact those. More information is required regarding the flow of patients into Brighton and Brighton's ability to achieve the national standard of patients reaching a stroke unit within 4 hours of arrival and critically meet the standards for assessment, imaging and thrombolysis/thrombectomy where indicated. The PCBC requires more information about the stroke service at RSCH to be assured about these options. In particular,

- There was an acknowledgement by the west Sussex team of the challenges RSCH is experiencing. Assurance on how the increased number of stroke patients at Brighton will continue to have access to time critical interventions such as thrombolysis and thrombectomy is needed.
- stroke pathway modelling at RSCH is required
- Clear plans regarding the implementation of increased thrombectomy services at RSCH from its current 'most weekdays' model to a genuine 24/7 model.
- There is the potential for patients from SRH to go to RSCH in place of Southampton, this increase in flow also requires modelling as does the repatriation of patients.
- There is limited information regarding flows for Thrombectomy for BSUH from outside of West Sussex, and the potential future impact.

University Hospitals Southampton

R15. Detail with regards to Southampton Hospital's view on additional thrombectomy work that may flow their way from the proportion of Worthing patients who move to St Richard's would be helpful.

Worthing

R16. There is a risk to the Worthing Hospital ED of it becoming deskilled if you move the stroke service to St Richards, Hospital. What mitigations will be put in place?

6.3 Co-dependencies of clinical services in the ASC

R17. The panel heard the clinical strategy is to deliver full services from each site and there are no plans to change co-located services. However, there is limited information available on the impact of co-dependencies for the new model. For example, clinical investigations and impact on cardiology, radiology, vascular, pharmacy and other co-dependent specialities especially ED. It would be beneficial to include an overview of the transformational changes and the impact on stroke related support services.

6.4 Travel times from home to ASC

R18. Although travel times do increase, no patient is expected to face a journey in excess of 60 minutes. Friends, family and carers will be the most impacted by travel times. The west Sussex panel highlighted they are currently working with community providers to source a community transport service. More pictorial representation in the form of travel isochrones would be useful for assessment of travel impact.

6.5 Impact on neighbouring hospitals and systems

The biggest impact of the proposed reconfiguration is to Portsmouth (options 3a and 3b) and Southampton and RCSH, Brighton (options 4a and 4b). These impacts are covered on page 22.

6. Proposed metrics for evaluating the quality of future services

R19. There is high level detail regarding the KPIs for service standards, but little information in regarding how these will be delivered; including TIAs, outpatient investigations and follow ups. How outcomes are going to be measured requires greater articulation in the PCBC. Critical success factors will be patient-related outcomes such as mortality and long-term disability, SSNAP data, primary prevention rates and secondary prevention rates, length of stay and readmission rates.

7. Workforce

R20. The PCBC states current and projected requirements for staffing across the medical, nursing and allied healthcare professions (AHP) however the Senate panel feel many assumptions have been made which require evidencing. Reference is made

to the increased opportunities for recruitment and retention and the benefits for staff in terms of skill acquisition that the proposed site rotation will bring. However, there is no information detailing how this will be realised and little evidence of mitigating workforce related risks. The success of the proposed change is heavily reliant on providing a seven-day stroke service. There is a recognition from the West Sussex team that workforce is a challenge and the current modelling requires more development. The panel also heard about staff engagement workshops but to date engagement has predominantly been with senior staff. The Senate recommends a comprehensive workforce strategy to include short, medium and long term plans with evidence that takes account of retention strategies, recruitment, development, workforce efficiencies and opportunities for new roles, optimising skills, integrated pathway working, clear identifications of risk and mitigating actions. These should be undertaken in concert with the relevant training organisations.

8.1 General considerations

R20.1 There is a vision that the new model will provide an attractive opportunity for recruitment and retention in the future. However, this requires further detail in order to establish a clear strategy.

R20.2 A clear timeline for recruitment of workforce against implementation plans is required to help mitigate risks. The panel heard there is a good track record of recruiting to SRH, evidence in support of this in the PCBC would be helpful. Staff accounts of working at SRH may help to highlight this.

R20.3 Details of workforce vacancies and turnover specific to stroke services as a percentage would help to give clarity to current workforce assumptions.

R20.4 Details of the impact of increased demand for imaging on the radiology and radiographer workforce incorporating the potential increased demand for thrombectomy services should be included.

R20.5 Consideration of Health Education England's (HEE) projected requirements for medical, nursing and AHPs with use of their workforce tableaus where appropriate.

R20.6 National workforce shortages mean that training and development opportunities are key factors for the success of the proposals. Training and on-going development (inclusive of leadership training and development) of all the workforce needs to be strengthened in the PCBC to include registered and non-registered staff. The panel heard that Chichester University has plans to commence a physiotherapy pathway. Engagement with local Higher Education

Institutes (HEI) to understand their forecasting with regards to undergraduate places for nursing and all AHP training and if this is expected to meet local demand would help longer term workforce modelling.

R20.7 A more creative approach to workforce issues would be beneficial. Inclusion of advanced nurse practitioners, apprenticeship pathways and details of collaboration with social care would enhance the current modelling.

R20.8 The Senate heard there are plans for a phased approach to the reconfiguration. Any move of services will entail re-location of staff, the exact details and impact of this on the current workforce is not clear. A full assessment of the impact, risks and proposed mitigation should be included within the narrative.

R20.9 Financial modelling has assumed all Stroke service related costs and funding will transfer out of Worthing site. There is also an assumption that all substantive posts will be filled. Costing taking account of the transition and need for a temporary staffing is recommended. The capacity release benefit to co-dependant stroke services on the Worthing site should be included in the modelling.

8.2 Medical

R21. There are challenges in recruitment of stroke consultants nationally. The recruitment and retention plans for west Sussex stroke reconfiguration are unclear. Job plans have not yet been developed and efficiencies in terms of working arrangements and virtual support not identified. Use of the workforce modelling framework to support developments in this area would be helpful.[7]

R21.1 There is no mention of physician associates. The physician associate role is now being used in many hospitals. Consideration of the benefit to the role within the stroke reconfiguration would be beneficial.

8.3 Nursing

R22. Evidence from previous stroke reconfigurations shows that while senior staff generally move to the new service this is not the case for more junior, particularly the band 5 registered nurses and the unregistered workforce. This will have an impact on volume of staff and skill mix. There was recognition from the west Sussex team that

[7] https://www.basp.org/publication/meeting-the-future-consultant-workforce-challenges-stroke-medicine-workforce-requirements-2019-to-2022/basp-stroke-medicine-workforce-requirements-report-final/

this may well be a challenge for them also. The plans to mitigate this risk are not clear and require further thought by the programme.

R22.1 The Senate recognise a move to approximately 75% single rooms and above is a national ambition of the New Hospitals Programme (NHP). The panel heard the nursing establishment modelling in the PCBC was prior to COVID-19 and the ambition for a design of 70% single rooms for west Sussex stroke services at SRH. The impact of this for required staffing levels needs to be fully detailed.

R22.2 Specialist nurses are essential for effective front door or direct ward access. What are the current specialist nurse numbers at RSCH?

8.4 Allied Health Professions

R23. There is currently a 5 day therapy service. The PCBC acknowledges current workforce levels do not meet national standards of staffing levels for 5 days. To meet the ambition of a 7 day service standard is suggestive of the need to recruit considerable numbers of a very specialised workforce. In addition, there is no current provision for early supported Discharge (ESD) services which also require a specialised therapy workforce. More detail of how the west Sussex stroke reconfiguration will meet this increase in demand is required and may benefit from a specific AHP workforce strategy.

8.5 Supporting services

R24. The senate would recommend widening staff engagement and assessment of staffing levels to include other services that will be affected by the changes. Such as radiography and cardiac investigation services.

8. Populations health/inequalities.

It is recognised the coastal area of west Sussex is one of the least deprived areas of the country (131/152 least deprived). However, the district of Arun has areas in Bognor Regis and Littlehampton that rank amongst the poorest 10% of the country, with a reduction in life expectancy of 7.6 years for men and 6 years for women. The NHSEI operational planning guidance 2022/23[8] has a focus on targeted intervention for health inequalities. Interventions to optimise blood pressure and minimise the risk of stroke are one of the 5 priority clinical areas identified as part of NHSEIs Core20PLUS5 approach.[9] The approach enables the biggest impact on avoidable mortality in the most deprived populations and contributes to an overall narrowing of the health inequalities gap. It would be helpful to be able to see how the ICSs understanding of its Core20PLUS population feeds into the West Sussex stroke reconfiguration.

R25. Ninety-two percent of the population of the coastal area of west Sussex are of white ethnicity however the panel heard that the coastal minority ethnic groups live within or near the areas that are most deprived. Both Worthing and SRH Chichester hospitals have very limited data regarding their BAME populations, with a significant percentage of admissions categorised as 'not stated' (PCBC p48) in some months. The Senate recommends identifying and rectifying deficiencies in data collection. This would allow the stroke services transformation programme to assess their population and target appropriate intervention more accurately.

R25.1 Equity of access is mainly focused on transport; the travel impact assessment needs to be clearer demonstrating it is across all parts of the patient pathway. The impact of moving services to SRH will result in deprived areas in Worthing being admitted to RSCH. More detailed modelling to ensure equity of access to this patient group is required.

R25.2 Equity of access for the frail and elderly coastal west Sussex population needing longer-term inpatient rehabilitation requires detailing. Even with ESD, which will take approximately 40% of the cohort of patients requiring rehabilitation, there will be a significant proportion of patients requiring longer-term rehabilitation. The stroke rehabilitation requirements will also be in competition with other services requiring access to rehabilitation and how this will be approached and mitigated requires describing.

[8] 20211223-B1160-2022-23-priorities-and-operational-planning-guidance-v3.2.pdf (england.nhs.uk)
[9] https://www.england.nhs.uk/publication/core20plus5-an-approach-to-reducing-health-inequalities-supporting-information/

R25.3 It is well documented that COVID-19 has exacerbated health inequalities. The Panel heard about understanding the issues for people in areas of deprivation in coastal west Sussex and how the turn the tide prevention agenda is being adopted. What is the learning from these in terms of addressing the prevention of strokes from inequalities of access to healthcare uncovered by the pandemic? Further detail specifically regarding access to prevention for minority groups and for communities within areas of high deprivation is needed.

9. Clinical engagement

R26. The PCBC highlights a workshop with staff and states staff support for the changes. However, it is suggestive of information sharing rather than offering all staff at all levels proactive opportunities to shape/codesign future plans. During the panel presentation and discussion, it became clear that not all staff had been engaged with to the same extent and assumptions about clinical staff support for the clinical model may have been made. It would be beneficial to have clear statements of support from all staff groups within stroke services, particularly those who will be required to move sites.

R27. The changes will see an increase in demand for SECAmb. More detailed data with regards to engagement with SECAmb is required. SECAmb - have given their full support to option 4. Option 4B would decrease the number of inter hospital transfers as there will be less conveyance apart than for thrombectomy.

R28. There is no information regarding engagement with co-dependent services, for example cardiology, radiology, gastroenterology and ED. Assurances from these services that they will be able to meet the increased demand need to be sought and documented.

R29. The PCBC appendices includes a letter from Portsmouth in support of options 4a and 4b. Further letters of support from stakeholders potentially affected by the changes would be beneficial, see R7.5, page 18.

10. Patient and public engagement

R30. The NHS constitution[10] states 'the NHS belongs to the people' and it is responsible for working in partnership with people to plan healthcare. It is clear from the PCBC, appendices and related documents that despite the COVID-19 pandemic work has taken place to engage stakeholders. The PCBC and EHIA provides some information concerning engagement with seldom heard groups. Plans for further work to engage with these groups, how the programme plans to engage those who have not been part of the initial groups and how this will be possible within the current timeframes needs to be detailed.

R30.1 Co-creation of proposed changes needs to be given a higher priority. Healthwatch and the Stroke Association were not included in the initial workshop regarding the longlist of options. Both have however been involved in helping the programme access patients, carers, family and the public and although this has provided valuable insight it is not that same as patients and families being partners in the decision making. The PCBC would benefit from clearly demonstrating co-production with patients and the public through the use of patient stories highlighting patient need and choice. The Stroke Association has a dual role in the reconfiguration plans as both a provider of services and as a patient, public partner. Any potential for conflict of interest needs to be clearly articulated in the PCBC.

R30.2 Clearer information about what the proposed changes mean to patients, their families and carers would be helpful. This needs to be presented on a very personal level, addressing how the change will affect their lives and how it will make a difference.

R30.3 The level of patient and public involvement in the final decision with regards to options 4b would benefit from being made more evident. Slide 11 taken from the EHIA in the panel presentation could be used to better articulate what patients want improved and be linked to the proposed changes.

[10] The NHS Constitution for England - GOV.UK (www.gov.uk)

11. COVID-19

R31. There is little information regarding learning from the COVID-19 pandemic in the draft PCBC. The west Sussex team talked passionately about the increased engagement during the pandemic with local communities and the trusted relationships with faith groups, voluntary community enterprises and the local authority that have resulted; this was particularly evident during the vaccination rollout where services learnt 'how to get close to people'. It is unfortunate these opportunities to engage with the public with regards to changes in the stroke service were missed however the enhanced relationships should be highlighted in the PCBC. It is recommended that future engagement strategies incorporate such opportunities.

R31.1 The COVID-19 pandemic has negatively impacted cardiovascular disease prevention.[11] There are several examples of where targeted prevention intervention was used during the pandemic.[12] There is little evidence of stroke prevention COVID-19 learning in the PCBC. GIRFT guidance may be helpful to review for local development opportunities. The inclusion of transferable learning within west Sussex or other national examples in the PCBC would further strength the evidence base for change.

R31.2 Discussion took place regarding side room capacity to support infection control. However, there was no information available regarding management of the planned 70% side rooms and the impact this would have upon patient safety (clinical and functional risks post stroke) or the impact upon staffing requirements and patient experience.

R31.3 The COVID-19 pandemic has driven advances in virtual appointments that have seen benefits for patients and services. There is no mention of virtual appointments in the PCBC and if this has been explored as an additional pathway for the 7 days a week service and/or the 6 month follow ups. Were virtual appointments used with the stroke services for coastal west Sussex that could be highlighted in the PCBC? Further work is currently being undertaken by Oxford AHSN regarding evaluation of face to face versus virtual services. This may provide a valuable learning resource.[13] GIRFT has some useful guides on how virtual appointments may be utilised.[14]

[11] CVD prevention during the COVID-19 pandemic (evessio.s3.amazonaws.com)
[12] COVID-vax-clinic-guidelines-FINAL.pdf (oxfordahsn.org)
[13] https://www.basp.org/supporting-stroke-services-during-the-covid-19-pandemic/adapting-stroke-services/
[14] Adapting-stroke-services-in-the-COVID-19-pandemic-May-2020.pdf (oxfordahsn.org)

R31.4 During the panel the Senate heard about the potential impact of telemedicine and the effect it might have on service delivery improvement. There is evidence from Kent and Medway of the substantial difference it has made to patient flow in terms of reducing stroke mimics and TIA patients (who can have a fast track referral made instead and stay at home if low risk). More detail in the PCBC about how this may be implemented in west Sussex together with the potential impact on conveyance and front door services in the ASC modelled from Kent and Medway data would strengthen the case.

12. Digital and Communication

R32. Increased reference in the PCBC to the digital enablers as per the National Stroke Service Model[15] would be beneficial. The benefits of telemedicine model used at Kent and Medway are recognised by the west Sussex team. How this is to be implemented and staffed and when is of critical importance to the reconfiguration plans. Embedding it at the beginning of any bed modelling will assist in patients being seen by the appropriate clinical teams and in keeping stroke beds available for stroke patients.

R32.1 The panel heard that the electronic patient record (EPR) system allowed for some sharing of records across sites and within primary care. Within 15 months all acute Trusts will have the same EPR system which will undoubtedly be beneficial. Attention needs to be paid to how information will flow to and from community and primary care to ensure joined up and coordinated personalised care throughout the stroke pathway.

R32.2 How digital technology will be used to impact self-management could be further explored. For example, how and where it could be delivered and the expected impact and outcomes.

[15] national-stroke-service-model-integrated-stroke-delivery-networks-may-2021.pdf (england.nhs.uk)

13. Sustainability

R33. One of the options appraisal's evaluation criteria was environmental sustainability. This is not fully explored in the accompanying narrative. The opportunity to demonstrate how the transformation of services will achieve this should be maximised.

R33.1 COVID-19 has resulted in great strides being made in digital consultations. Reductions in patient journey time to face to face appointments could be quantified and translated into kg carbon dioxide equivalent reductions. For further information regarding sustainable health care we recommend the information supplied by Centre for Sustainable Healthcare[16] and the Greener NHS programme.[17]

[16] https://sustainablehealthcare.org.uk
[17] https://www.england.nhs.uk/greenernhs

14. Conclusion

There has been extensive and detailed work undertaken in constructing the draft PCBC, with evidence of initial senior clinical engagement and involvement. The PCBC narrative is heavy and could benefit from more pictorial representation of the key points that it is trying to make. It is important that the PCBC executive summary clearly identifies the most important outcomes of the proposed transformation, and that these are sustainable for the future. Within the PCBC the clinical benefits of consolidating acute stroke services for West Sussex onto one site are stated and the new ASC will form part of the integrated stroke network for this part of the region. There is clear potential to create a single centre of excellence from an improved patient outcome perspective with a true 24/7 service translating into a reduction in mortality and disability from stroke disease. However, the Clinical Senate panel have made a number of recommendations encompassing the whole stroke pathway, in particular prevention and exactly what impact this will have, the timeline for implementation of the proposed transformation, bed modelling, workforce considerations including training, and the potential increasing role for thrombectomy. Finally, the panel have also highlighted the importance of retaining the strengths of the current stroke service and the potential impacts of the preferred option on an already challenged service at the Brighton CSC.

Clinical senate recommendations are not mandatory but reflect the considered opinion of a group of independently acting clinicians and others after reviewing the material shared with them within the timescales required. It is hoped that the range of recommendations in this report will help to ensure that the proposals going forwards are clear, supported by the evidence provided, address quality and safety requirements, and are shown to improve the quality of care for the population of West Sussex.

Apendix A Key Lines of Enquiry (KLOEs)

West Sussex: - Stroke - Clinical Senate Review Proposed key lines of enquiry (KLOE)
A. KLOES: Review of overall strategy, principles and approach
Has the Case for Change, and the health needs of the population been clearly identified? Do the proposals deliver improved and high-quality patient outcomes? • Including reference to Sentinel Stroke National Audit Programme (SSNAP) metric ambition across all domains; plans and indicative trajectories.
Has there been sufficient modelling of current and expected future demand for stroke services, and demonstration that planned capacity in West Sussex in Comprehensive Stroke Centers (CSCs) and Acute Stroke Centers (ASCs) is aligned with this demand? (N.B. this will also be reviewed option by option). The panel will want to understand the detail of the modelling • Provide detail on the assumptions/modelling around Prevention interventions. • Summary, demonstrating the modelling including TIA's (transient ischaemic attacks)/Stroke Mimics. What modelling assumptions have been made re early supported discharge (ESD) and rehab that supports CSC/ASC modelling? • What quality assurance has been applied around the bed modelling? • What assumptions have been made re overall acute/A&E activity peaks? • Will suspected stroke be fast-tracked to avoid A&E? • Does the model assume ASC and CSC beds are ring-fenced?
Has the impact of West Sussex stroke service reconfiguration on East Sussex, Surrey and Hampshire stroke services, and conversely that of any planned reconfigurations in neighboring counties, been taken into account?
Has a whole pathway approach been taken in developing the stroke options? If not, is there sufficient recognition of the important aspects of pathways that are out of scope of this review, and description of the further plans to address these?
Is there a clear and detailed analysis of adherence to the national optimal stroke imaging pathway?
Are the facilities for imaging described in terms of type of imaging available, length of time they will be in use and level of access for stroke patients?
Are the metrics by which the improvement in the quality of patient outcomes will be assessed sufficiently detailed and appropriate? • Sentinel Stroke Audit Programme (SSNAP) trajectory across all domains • Are other quality measures referred to? • How are metrics being used to facilitate improvements?
Is the role of clot thrombectomy for selected stroke patients referred to in the PCBC, with a description of the possible ways this service might be provided for West Sussex patients?

Is the role of thrombolysis for selected stroke patients referred to in the PCBC, with a description of the possible ways this service might be provided for West Sussex patients?
Are there any major inconsistencies in the proposed reconfiguration of services with the NHS Long Term Plan/GIRFT recommendations, National Stroke Service plan, Regional Stroke Service Specifications, NICE NG128 (Stroke and transient ischaemic attack in over 16s: diagnosis and initial management), NICE CG162 (Stroke rehabilitation in adults) and NICE QS2 (Stroke in adults) and 22/23 Planning Guidance.
Workforce
Is there a coherent and realistic workforce strategy that takes account of the full range of the clinical workforce, training and education, and the opportunities provided by new roles and ways of working?
What impact will the preferred option have on future staff retention and recruitment?
Health Equalities/Inequalities
Has the need for equity of access to acute stroke services across the geography of West Sussex been taken in to account?
Has the impact on the various equality groups been quantified?
What considerations have been made with regards to equity of access to rehabilitation services?
Engagement (Patient, Public, Clinical)
Has there been meaningful patient and public involvement in coming to the options being proposed?
How has the engagement to date sought to be inclusive of seldom heard, minority and deprived population groups?
Has the breadth and depth of clinical engagement been sufficient?
Sustainability
What approaches have been taken to ensure that the future clinical model for stroke takes full account of sustainable healthcare requirements for the future?
COVID-19
Has the relevant system learning from COVID-19 been taken into account as part of the plans?
What learning has been gained in terms of prevention of stroke from inequalities of access to healthcare uncovered by the pandemic?
What learning has been captured from the experiences of patients and their families access services and information during the pandemic?

Have the potential impacts of increased requirements of heightened infection, prevention and control been considered? For example, the impact of additional time required for cleaning CT scanning facilities on the call to needle/thrombolysis times
Digital Innovation
What digital innovations have been/will be introduced and what will be their impact on different steps in the patient pathway?
Has any consideration been given to virtual consultations in the transient ischaemic attack patient pathway?
How will digital technology be used to impact self-management
Overall Comments
Any general comments on the proposed patient pathway; is it clear and sound?
B. KLOEs: review of the four individual stroke options
General points
Are the respective roles and relationships of the various CSCs and ASCs in the options adequately described and delineated? • What is the pathway/relationship between the CSC and ASC for each of the hospital options?
Does the option ensure equity of access to acute stroke services across the geography of West Sussex? This relates to ambulance travel time, and private and public transport links and provision.
Will there be sufficient bed capacity within the planned CSCs and ASCs? Does the bed modelling take account of augmented out-of-hospital options, such as Early Supported Discharge, or community-based inpatient rehabilitation? • How are the net bed requirements for each option illustrated in the bed capacity modelling? • Demonstrate the validity of the bed /capacity modelling for each hospital site.
ASC/CSC
Is there a clear articulation of the expected ASC and CSC activity levels (confirmed strokes per annum) in each of the proposed centres, both current and in the future, with sufficient data provided to supporting these assumptions? • Has sufficient account been taken of neighboring counties stroke modelling assumptions, e.g. East Sussex, Surrey, Hampshire?
MEDICAL STAFFING: Is there a credible and sustainable recruitment and retention plan for medical staffing and 24/7 rotas that meets national specifications.
NURSE STAFFING: Is there a credible and sustainable recruitment and retention plan for specialist nursing and advanced care practitioners?

THERAPIES/AHP STAFFING: Is there a credible and sustainable plan for recruitment and retention for both CSC and ASC-based physiotherapists, Occupational Therapists, Speech and Language Therapists, and clinical psychologists?
CALL-TO-DOOR AND CALL-TO-THROMBOLYSIS TIMES: Is there evidence of engagement with and support for the modelling from SECAmb? • Has SECAmb indicated preferred activity modelling? • What is the likely impact on paramedic and ambulance resources?
CO-DEPENDENT SERVICES: Is there evidence that the required co-dependent clinical services are available on the proposed CSC/ASC sites? • Co-dependencies need to be understood and articulated on a hospital site basis. • (Refer to the purple and red rated services in the South East Clinical Senate review of the clinical co-dependencies of acute hospital services.) • (Services as for CSCs, but with the additional need for inpatient rehabilitation services).
Non ASC/CSC Hospitals
PATIENT PATHWAYS: For any hospitals which will not have either a CSC or ASC, are the following pathways for specific patient groups clear: A&E attenders, GP referrals, in-hospital stroke, stroke mimics, TIAs? • What are the agreed repatriation pathways?
EFFECT ON OTHER SERVICES: Has the potential impact of withdrawal of a current CSC/ASC on other clinical services been described, and if so, the mitigations that are being considered?
TIA Pathway
MEETING STANDARDS: Will the plans ensure that nationally specified standards will be met, including pathways for urgent and less urgent patients?
What are the arrangements for provision of timely carotid imaging and endarterectomy?
Stroke Mimic
ACTIVITY MODELLING: Have the total numbers of such patients been quantified and validated (showing the modelling and evidence for assumptions, and that such modelling is agreed across the system)?
PATIENT PATHWAYS: Has the patient pathway both for onwards referral and repatriation for these patients before and following exclusion of an acute stroke been clearly articulated?
Rehabilitation pathways
POST-CSC/ASC PATHWAYS: Are the pathways for onward care post-CSC/ASC described, with an understanding of the anticipated need for community-based rehabilitation beds, and where that would be provided?

C. KLOEs relating to preferred options

Options 2, 3a and 3b, 4a and 4b

- **Option 2 – Set up Acute Stroke Centres at both Worthing and St Richard's**- upgrade the units at both Worthing and St Richard's to ASCs.
- **Option 3a – Set up ASC at Worthing, acute care at St Richard's-** upgrade the unit at Worthing to an ASC and post hyper-acute care at St Richard's.
- **Option 3b – Set up ASC at Worthing, Rehabilitation only at St Richard's**- upgrade the unit at Worthing to an ASC and Rehabilitation services only for stroke patients in Chichester, whether acute, community or home-based.
- **Option 4a – Set up ASC at St Richard's, acute care at Worthing-** upgrade the unit at St Richard's to an ASC and post hyper-acute care at Worthing.
- **Option 4b – Set up ASC at St Richard's, Rehabilitation only in Worthing-** upgrade the unit at St Richard's to an ASC and Rehabilitation services only for stroke patients in Worthing, whether acute, community or home-based.

Are there option-specific issues that need highlighting in relation to:

- Impact on quality of care and clinical outcomes
- Equitable access for the population.
- Clinical co-dependencies between services
- Are there any planned changes for the future that will affect the core stroke clinical co-dependencies?
- Impact on specific major inpatient clinical services.
- Impact (if any) of additional facilities required by stroke services on other services on the preferred hospital site?
- Workforce implications.
- Capacity (beds, theatres, critical care).
- Patient flow?

Is the impact on neighbouring hospitals clearly described and quantified for the clinical model within the options presented, and are there any associated issues of concern that may be option specific that are not described in the PCBC?

Is the impact on surrounding acute trust's stroke services clear?

Apendix B Glossary

	Name	Definition
3Ts	Teaching, Trauma and Tertiary Centre	The 3Ts redevelopment is a construction programme to modernise the front half of the Royal Sussex County Hospital in Brighton.
A&E	Accident and Emergency department	A&E is a medical treatment facility specialising in emergency medicine, the acute care of patients who present without prior appointment; either by their own means or by that of an ambulance. Alternatively known as Emergency Department (ED).
AF	Atrial fibrillation	The most common type of irregular heartbeat and a risk factor for stroke. AF increases the chances of blood clots forming in the heart, and these clots can then travel in the blood stream to the brain and cause a stroke. AF is usually treated with anticoagulant medication.
AI	Artificial Intelligence	Brainomix is an Artificial Intelligence (AI) tool developed to support rapid interpretation of brain scans and was implemented across the Sussex ISDN in all stroke receiving units in 2021 to improve outcomes for patients.
AIWG	Acute Implementation Working Group	AIWG was formed following the publication of the West Sussex Case for Change to develop the UHSussex Acute Stroke clinical model aligned to the West Sussex vision.
AOA	Acute Organisational Audit	The acute organisational audit provides a biennial 'snap-shot' of the quality of stroke service organisation in acute settings.
	Anticoagulant	A type of medication used to thin the blood. Thinning the blood helps to reduce the risk of blood clots forming and reduces the risk of stroke. Anticoagulants are usually prescribed to reduce the risk of stroke in people with a type of irregular heartbeat called atrial fibrillation (AF).
ASC	Acute Stroke Centre	Most recent terminology (2021) – A stroke unit providing hyper-acute, acute and inpatient rehabilitation, but excluding thrombectomy and neurosurgery.
ASU	Acute stroke unit	A stroke unit providing acute care in the early stages post-stroke. Treatment and care during the acute phase of stroke are crucial and will include a number of tests to confirm the diagnosis, including a brain scan.
BAME	Black Asian Minority Ethnic Groups	Black Asian Minority Ethnic Groups
BME	Black and Minority Ethnic groups	Black and Minority Ethnic groups
BSL	British Sign Language	Within Britain the most common form of Sign Language is called British Sign Language (BSL). BSL has its own grammatical structure and syntax, as a language it is not dependant, nor is it strongly related to spoken English.

BSUH	Brighton and Sussex University Hospitals NHS Trust	BSUH in Brighton is the former name of UHSussex.
	Cardiac arrhythmia	An abnormal or irregular heartbeat.
CGL	Change, Grow, Live	Specialist alcohol support and treatment service.
	Cholesterol	A fatty substance that is made in the liver and found in some foods. But too much cholesterol can result in narrowing of the blood vessels. This increases the risk of stroke.
CNRT	Community Neurological Rehabilitation Team	A team of professionals working together to help people who have been clinically diagnosed with a stroke, subarachnoid haemorrhage or acquired brain injury within the last 12 months, or with a diagnosis of a progressive neurological condition and who have the potential for improvement through rehabilitation.
CQC	Care Quality Commission	The Care Quality Commission (CQC) is an executive non-departmental public body of the Department of Health and Social Care of the United Kingdom. It was established in 2009 to regulate and inspect health and social care services in England.
CRG	Clinical Reference Group	A formal subgroup of the West Sussex Stroke Executive Oversight Group (SEOG).
CSC	Comprehensive Stroke Centre (CSC) replacing previous Hyper Acute Stroke Unit (HASU	Most recent terminology (2021) – A stroke unit providing hyper acute, acute and inpatient rehabilitation including thrombectomy and neurosurgery.
CTA	Computed tomographic angiography	CTA is a type of medical test that combines CT scan with an injection of a special dye to produce images of blood vessels and tissues.
CTP	Computed tomographic perfusion	CTP imaging is an advanced modality that provides important information about capillary-level hemodynamics of the brain parenchyma.
	CT SCAN	CT stands for computerised tomography and is a type of brain scan. It is a type of X-ray that is used to see what is going on inside the brain. It is particularly good at seeing whether a stroke is caused by a blockage or a bleed. People who have a suspected stroke should have a CT scan as soon as possible.
CVD	Cardiovascular disease	CVD is a class of diseases that involve the heart or blood vessels.
CWS	Coastal West Sussex CCG	Is the former CCG, covering the district areas of Adur, Arun, Chichester and Worthing. The Coastal West Sussex CCG, merged in April 2020, with Horsham and Mid-Sussex and Crawley CCG to form the NHS West Sussex CCG.
	Diabetes	A condition where the body is not able to process sugar (glucose). Diabetes causes high levels of sugar in the blood. This increases risk of stroke and other problems, like damage to kidneys.

DeafCOG	Deaf Cultural Outreach Group	An umbrella organisation that hosts activities and projects of value to the Deaf community. The aim is to promote the Deaf identity positively; to create opportunities; to strengthen the community; and to provide community-led services in British Sign Language (BSL) and Deaf culture
DES	Direct enhanced service	The Primary Medical Services (Directed Enhanced Services) Directions 2019 set out the legal framework under which enhanced services must be provided nationally.
DOAC	Direct oral anticoagulants	Refers to a group of new anticoagulant medications. An anticoagulant is a medication that either treats or prevents blood clots, often called a 'blood thinner'.
DPP	NHS Diabetes Prevention Programme	13-week national programme delivered locally by Xyla Health & Wellbeing.
DWH	Donald Wilson House	DWH is a neurological rehabilitation services and care for patients with post-acute and progressive neurological disorders. DWH is located at the SRH Chichester site.
ECG	Electrocardiogram	One of the tests used to check for an irregular heartbeat, which is a risk factor for stroke. Sticky pads, attached to wires, are put on to the person's chest to measure the electrical activity of their heart. It is a painless process.
EHIA	Equality Health Impact Assessment	Equality and Health Inequalities Impact Assessments are an essential part of a continuous service / policy and performance review. They are a tool for identifying and measuring impact on people with different protected characteristics and those with lower socio-economic status who are at greater risk of poor health outcomes. They are essential tools that enable and demonstrate regard for equality and reducing health inequalities.
EMIS	Egton Medical Information Systems	EMIS supplies electronic patient record systems and software used in primary care, acute care and community pharmacy in the United Kingdom.
ESD	Early Supported Discharge	Designed for stroke survivors with mild to moderate impairment who can be discharged from hospital sooner to receive the necessary therapy at home.
ESHT	East Sussex Healthcare Trust	ESHT provides acute hospital and community NHS services for people living in East Sussex and surrounding areas
HASC	Health and Adult Social Care Scrutiny Committee	HASC is responsible for the overview and scrutiny of the Cabinet portfolios in West Sussex. Other systems call this a HOSC.
HASU	Hyper-acute stroke unit (replaced with comprehensive stroke centre, see above)	Specialist stroke centres that are 24 hours 7 days per week to manage the first 72 hours of stroke care

HOSC	The Health Oversight Scrutiny Committee	HOSC looks at the work of the National Health Service (NHS) clinical commissioning groups, healthcare trusts, and the NHS England Local Area Team. The Committee acts as a 'critical friend' by suggesting ways that health related services might be improved.
HTN	Hypertension	The medical term for high blood pressure. This is when the pressure of blood flowing through blood vessels is too high (consistently higher than 140/90mmHg). High blood pressure usually has no symptoms and is the biggest risk factor for stroke.
IBA	Alcohol Identification and Brief Advice	IBA in pharmacies- opportunistically screening adults, using community pharmacy services, for risky drinking and providing feedback (brief advice) and signposting.
ICH	Intracerebral Haemorrhage	ICH (bleeding into the brain tissue) is the second most common cause of stroke. Blood vessels carry blood to and from the brain. Arteries or veins can rupture, either from abnormal pressure or abnormal development or trauma.
ICS	Integrated Care System	Integrated care systems take the lead in planning and commissioning care for their populations and providing system leadership. They bring together NHS providers, commissioners, and local authorities to work in partnership in improving health and care in their area.
ICSS	Integrated Community Stroke Service	This is a multidisciplinary team that offers stroke rehabilitation at a range of intensities – from ESD, which tends to be a course of high intensity rehabilitation that a patient receives over a relatively short period of time, to less-intensive rehabilitation courses that typically span longer periods of time.
ISDN	Integrated Stroke Delivery Networks	ISDN is a key change within the NHS Long Term Plan where relevant agencies including ambulance services through to early supported discharge will ensure that all stroke provision meet the NHS seven-day standards for stroke care and the National Clinical Guidelines for Stroke.
JQC	Sussex CCG Joint Quality Committee	The Sussex CCGs' committee assuring quality.
KSS AHSN	Kent Surrey and Sussex Academic Health and Science Network	Established by NHS England in 2013 to spread innovation at pace and scale – improving health and generating economic growth.
LAS	Life After Stroke Services	These services provide the ongoing personalised care and support that people need to rebuild their lives and minimise risk of future cardiovascular events
LCS	Locally Commissioned Service	Locally commissioned GP services include contract documentation, service specifications and guidance relating to primary care services that CCG commission. These services are intended to meet the local health needs and enable patients to access services at their GP practice.
LOS	Length of stay	Referring to time in days spent in the acute trust before discharge

LTP	NHS Long Term Plan	The NHS Long Term Plan, also known as the NHS 10-Year Plan is a document published by NHS England on 7 January 2019, which sets out its priorities for healthcare over the next 10 years and shows how the NHS funding settlement will be used.
MDT	Multidisciplinary Team	A group of health care workers who are members of different disciplines (professions e.g. Psychiatrists, Social Workers, etc.), each providing specific services to the patient. This coordinates their services and gets the team working together towards a specific set of goals.
MECC	Making Every Contact Count	MECC use an approach to identify and engage smokers into MECC service; and provide smoking cessation interventions that have a clear structure and content.
MRI	Magnetic resonance imaging	Magnetic resonance imaging is a medical imaging technique used in radiology to form pictures of the anatomy and the physiological processes of the body.
MRP	Magnetic resonance pancreatography	MRP is a technique that permits accurate evaluation of the pancreatic duct without instrumentation, contrast material administration, or ionizing radiation.
NHSE/I	NHS England/Improvement	NHS England and NHS Improvement leads the National Health Service (NHS) in England
NICE	National Institute for Clinical Excellence	NICE guidelines are evidence-based recommendations for health and care in England.
NSP	National Stroke Programme	The National Stroke Programme (NSP) has been developed jointly by NHS England and the Stroke Association in consultation with a wide range of clinical experts and people affected by stroke.
OT	Occupational Therapist	Healthcare professionals who can help a person find ways of carrying out the tasks of everyday living. This can include tasks such as getting washed and dressed. They may also be able to help the person return to their hobbies and can advise on returning to work.
PCBC	Pre Consultation Business Case	A PCBC is the document on which a decision to consult on service change is taken.
PCN	Primary Care Networks	Primary Care Networks (PCNs) are a key part of the NHS Long Term Plan, where all general practices have been required to be in a network since June 2019, and Clinical Commissioning Groups (CCGs) are required to commit recurrent funding to develop and maintain them. The networks have expanded neighbourhood teams which comprise a range of staff such as GPs, pharmacists, district nurses, community geriatricians, dementia workers and Allied Health Professionals such as physiotherapists and podiatrists/ chiropodists, joined by social care and the voluntary sector.
PDP	Pre-Diabetes programme	A one-off half-day workshop which includes information, ideas and support on how participants can reduce their risk of developing Type 2 Diabetes, followed by optional one-to-one sessions with a wellbeing adviser.

PEG	Percutaneous Endoscopic Gastrostomy	A percutaneous endoscopic gastrostomy is a flexible feeding tube placed through the abdominal wall into the stomach.
PHE	Public Health England	Public Health England was replaced by UK Health Security Agency and Office for Health Improvement and Disparities
PHU	Portsmouth Hospitals University NHS Trust	Trust providing hospital services in Portsmouth
PRH	Princess Royal Hospital	PRH in Haywards Heath part of UHSussex.
QAH	Queen Alexandra Hospital	Acute trust in Portsmouth providing stroke services in Hampshire
QOF	Quality and Outcomes Framework	A system for the performance management and payment of general practitioners (GPs) in the NHS.
	Rehabilitation	Support to recover and adapt to the impact of illnesses and long term conditions. It usually involves specific therapies such as physiotherapy, speech and language therapy or occupational therapy and often involves exercises to help the person recover any abilities they have lost and learn new techniques to compensate for any lasting effects.
RSCH	Royal Sussex County Hospital	RSCH is an acute hospital in Brighton is part of UHSussex Trust.
SCFT	Sussex Community NHS Foundation Trust	Main provider of community NHS health and care across Brighton and Hove, East Sussex, High Weald Lewes and Havens and West Sussex.
SECAmb	South East Coast Ambulance	SECAmb is the NHS ambulance services trust for south-eastern England, covering Kent, Surrey, West Sussex and East Sussex.
SEOG	Stroke Executive Oversight Group	The role of the SEOG is to oversee the development and improvement of stroke services for the population in line with Sussex ISDN and national service specifications, national directives and quality standards
SFWSP	Smoke Free West Sussex Partnership	SFWSP is a partnership of providers across West Sussex aiming to support smokers to quit and address inequalities
SHCP	Sussex Health and Care Partnerships	SHCP brings together 13 organisations into an integrated care system (ICS). Take collective action to improve the health of local people, ensure that health and care services are high-quality and to make the most efficient use of our resources.
SLT	Speech and language therapist	A therapist who specialises in helping people with communication support needs after stroke including dysarthria (weakness of the muscles in the mouth) and aphasia (difficulty speaking or understanding what is said). They can also assess people and offer advice on swallowing problems.
SPFT	Sussex Partnership Foundation Trust	SPFT provides mental health and learning disability services to the people of Brighton & Hove, East Sussex and West Sussex.

SRC	Sussex Rehabilitation Centre	SRC is a neurological rehabilitation services and care for patients with post-acute and progressive neurological disorders. SRC is located at Princess Royal Hospital in Haywards Heat
SRU	Stroke Recovery Unit	A unit that does not receive stroke patients at the hyper acute stage but provides acute and inpatient rehabilitation only.
SRH Chichester	St Richards Hospital	St Richards Hospital in Chichester part of UHSussex Trust.
SSNAP	Sentinel Stroke National Audit programme	SSNAP is a major national healthcare quality improvement programme. SSNAP measures the quality and organisation of stroke care in the NHS and is the single source of stroke data in England, Wales, and Northern Ireland.
	Stroke	Strokes are a blood clot or bleed in the brain, which can leave lasting damage affecting mobility, cognition, vision, psychological well-being and communication. The effects can include aphasia, physical disability, loss of cognitive and communication skills, depression and other mental health problems.
STARR projects	STARR (The Decision SupporT and self-mAnagement system for stRoke survivoRs)	STARR (The Decision SupporT and self-mAnagement system for stRoke survivoRs) project and the system developed in it are targeting the self-management of stroke risk factors. We will use existing predictive models of stroke risk
STP	Sustainability and Transformation Partnership	STPs have been developed by NHS and local government leaders in 44 parts of England. The plans offer a chance for health and social care leaders to work together to improve care and manage limited resources. STPs are currently evolving into Integrated Care Systems
SU	Stroke Unit	A ward or dedicated area in a hospital staffed by nurses and therapists with experience in stroke treatment. It has been shown that people admitted to a stroke unit have a higher chance of surviving than those admitted elsewhere in hospital.
SystmOne	SystmOne	SystmOne is a centrally hosted clinical computer system predominantly used in primary care
	Thrombectomy	Thrombectomy is the interventional procedure of removing a blood clot (thrombus) from a blood vessel.
	Thrombolysis	An early treatment for some types of strokes caused by a blood clot. Thrombolysis is a procedure that involves being given a drug which breaks down blood clots and so can reverse the damage done by the stroke, but it must be given within four hours of the stroke happening.
TIA	Transient Ischaemic Attack	The symptoms of a TIA are very similar to those of a stroke, but they only last for a short time, sometimes only a few minutes or hours. The person always recovers completely within 24 hours (if not it is a stroke). TIAs are sometimes called “mini strokes”.

UCL	UCL proactive care framework	The frameworks were developed by UCL partners to support identification, risk stratification and management of primary care patients post-COVID-19
UHSussex	University Hospitals Sussex	University Hospitals Sussex NHS Foundation Trust (UHSussex) was formed on 1 April 2021. The Trust was created by a merger of Brighton & Sussex University Hospitals NHS Trust, running hospitals in Brighton and Haywards Heath, and Western Sussex Hospitals NHS Foundation Trust, running hospitals in Shoreham-by-Sea (Southlands), Worthing and Chichester (St Richard's).
VCSE	Voluntary Community and Social Enterprise organisations	VCSE Health and Wellbeing Alliance (HW Alliance) is a partnership between sector representatives and the health and care system. It is a key element of the Health and Wellbeing Programme, enabling the sector to share its expertise at a national level with the aim of improving services for all communities.
VF	Videofluoroscopy	A videofluoroscopy is a moving x-ray examination of swallowing
WSCC	West Sussex County Council	West Sussex County Council is the authority that governs the non-metropolitan county of West Sussex.
WSHFT	Western Sussex Hospitals Foundation Trust	WSHFT former name of the acute trust covering Worthing and St Richard's now referred to as UHSussex.
WTE	Whole Time Equivalent	The number of whole time equivalents (WTE) constructed by dividing working hours by 37 and treating anyone with more than 37 working hours as one WTE.

Apendix C Documentation provided by West Sussex Team

Document Number	Document Name
1	The West Sussex Stroke Transformation Programme Draft PCBC
2	Draft PCBC Glossary
3	Coastal Area of West Sussex Stroke Services Review Case for Change October 2021
4	Transforming stroke services in coastal West Sussex Equality and Health Inequalities Impact Assessment (EHIA) February 2022.
5	Sussex Health and Care Partnership Long Term Conditions Programme - LTP ambitions update & Transformation Priorities 21/22
6	Sussex Health and Care Partnership Building a Rehabilitation Mandate for Sussex
7	Letter of Support from Portsmouth Hospitals
8	St Richard's Hospital Chichester GIRFT Stroke Data Pack
9	Worthing General Hospital GIRFT Stroke Data Pack
10	GIRFT Final Observation Notes – Western Sussex NHS FT
11	West Sussex Health and Care Partnership Plan 2021/22 - Summary

Apendix D South East Clinical Senate (KSS) Review Panel Membership, Declarations of Interest and Agenda

South East Clinical Senate (KSS) Review Panel Membership

Name	Roles
Paul Stevens	Clinical Senate Chair
Amanda Allen	Clinical Director of Therapies, Maidstone and Tunbridge Wells NHS Trust
Paul Bhogal	Barts health Group
John Black	Medical Director, South Central Ambulance Service
May Bullen	Patient and Public Partner
Emily Castle	Clinical Lead, Canterbury and Coastal Neuro Team, Kent Community Health NHS Foundation Trust
Peter Green	GP Governing Body member, NHS Kent and Medway CCG
David Hargroves	Consultant Stroke Physician, East Kent Hospitals University NHS Foundation Trust
Melanie Hill	Deputy Director of Strategy and Business Development, East Kent Hospitals University NHS Foundation Trust
Mohit Sharma	Public Health England, South East Region
Ottilia Speirs	Consultant Stroke Physician, Frimley Health NHS Trust
David Sulch	Consultant Physician in Stroke Medicine, Dartford and Gravesham NHS Trust
Louise Ward	Clinical Director for Stroke, Integrated Stroke Delivery Network, Kent and Medway CCG
Janet Waters	Patient and Public Partner
Saloni Zaveri	Public Health England, South East Region
Helen Bell	Programme Manager, South East Clinical Senate (KSS)
Emily Steward	Head of South East Clinical Senate (KSS)

Declarations of Interest

Name	Personal pecuniary interest	Indirect pecuniary interest	Personal family interest	Non-personal pecuniary interest	Personal non-pecuniary interest
Paul Stevens	None	None	None	None	None
Amanda Allen	None	None	None	None	None
Paul Bhogal	None	None	None	None	None
John Black	None	None	None	None	None
May Bullen	None	None	None	None	None
Emily Castle	None	None	None	None	None
Peter Green	None	None	None	None	None
David Hargroves	None	None	None	None	None
Melanie Hill	None	None	None	None	None
Mohit Sharma	None	None	None	None	None
Ottilia Speirs	None	None	None	None	None
David Sulch	None	None	None	None	None
Louise Ward	None	None	None	None	None
Janet Waters	None	None	None	None	None
Saloni Zaveri	None	None	None	None	None
Helen Bell	None	None	None	None	None
Emily Steward	None	None	None	None	None

Panel Day Agenda

South East Clinical Senate Expert Review Panel – 2nd March 2022: Review of the pre-Consultation Business Case for Stroke Services for West Sussex CCG *(Please note: Clinical Senate Panel **only** Pre meet 12.30-13.00pm)* Via TEAMs link Click here to join the meeting			
Item	**Time**	**Item**	**Lead**
1.	12.15	**Registration/Join TEAMS (*Clinical Senates panel only*)**	
2.	12.30	**South East Clinical Senate Expert Review Panel *only* pre-meet.**	**PS**
	13.00	***West Sussex CCG team to join the meeting***	
3.	13.00	**Welcome, Introduction, context and approach to the review.**	**PS**
4.	13.10	**Presentation from the West Sussex CCG team**, summarising the strategic context, Case for Change, purpose of the proposed reconfiguration, criteria used for options shortlisting and brief overview of options.	**West Sussex Team**
5.	13.40	**Panel Q&A** between the clinical senate panel and the West Sussex team, relating to the key lines of enquiry and the presentation.	**PS**
6.	15.20	**West Sussex Team to leave the meeting - Comfort break**	
7.	15.30	**Panel Discussion:** Key findings, evidence base and emerging themes for recommendations.	**PS**
8.	16.50	**Summing up, next steps**	**PS**
9.	17.00	**Meeting close**	

Apendix E West Sussex Panel Membership

Name	Roles
Joanne Alner	Deputy Managing Director/Director of Commissioning, West Sussex CCG
Jane Boyle	Head of Strategy Development, University Hospitals Sussex NHS Foundation Trust
Pennie Ford	Executive Managing Director, West Sussex CCG
Thomas Goodridge	Public Involvement Manager for West Sussex
Rachel Harrington	Director of Long Term Conditions Programme, Sussex Health and Care Partnership
Georgina Hughes	Clinical Service Manager, Responsive Neuro Services, Sussex Community NHS Foundation Trust
Simone Ivatts	Consultant Stroke Physician, University Hospitals Sussex NHS Foundation Trust
Nicola Kemp	Senior Communications and Public Involvement Manager, West Sussex
Jane Lodge	Associate Director of Public Involvement and Community Partnerships, Sussex NHS Commissioners
Dr Rajen Patel	Consultant/Physician, University Hospitals Sussex NHS Foundation Trust
Oliver Phillips	Director of Strategy and Planning, University Hospitals Sussex NHS Foundation Trust
Glyn Williams	Clinical Director for Primary Care, Westcourt Medical Centre