Surrey Heartlands HEALTH AND CARE PARTNERSHIP

South West London Health & Care Partnership

Frimley Health and Care

St George's University Hospitals NHS Foundation Trust

Epsom and St Helier University Hospitals NHS Trust

NHS England and NHS Improvement

RENAL SERVICES AT ST HELIER AND ST GEORGE'S HOSPITALS

PRE-CONSULTATION BUSINESS CASE

NHS South West London Clinical Commissioning Group
3rd Floor
120 The Broadway
London SW19 1RH

https://swlondonccg.nhs.uk

Executive summary

The NHS is making a proposal to improve care for the patients with renal (kidney) conditions that they currently treat at St Helier Hospital (run by Epsom and St Helier University Hospitals NHS Trust) and St George's Hospital (run by St George's University Hospitals NHS Foundation Trust). The South West London Clinical Commissioning Group (CCG) is leading this proposal on behalf of the local NHS through the CCG's role as the statutory body, providing the appropriate support, governance and oversight.

Renal clinicians recommended this change in 2020 during the Improving Healthcare Together (IHT) consultation for the new specialist emergency care hospital which will open in Sutton later this decade. Under the IHT plan, some renal care currently provided at St Helier hospital would move to the new hospital in Sutton. This proposal's preferred option is that instead, this renal care would take place in a brand-new specialist unit at St George's as part of a consolidated service with the current St George's unit.

This proposal mostly affects admissions for planned or unplanned overnight care (inpatients). A small number of outpatient appointments, and some dialysis training services, are also affected. In total this affects less than 5% of contacts with renal patients provided by the two units.

Inpatient examples of the services affected include patients needing:

- Renal and vascular access surgery
- Transplants
- Stabilisation and treatment following an acute kidney injury

Outpatient examples include:

- Additional support in early stages of dialysis care
- Additional advice and training to support home therapy

Inpatient care would take place in a new purpose-built renal unit at St George's Hospital in Tooting with over 70 beds, 14 day care beds and 24 dialysis stations. The new unit will also have access to around 15 dedicated theatre sessions within St George's Hospital. All regular outpatient appointments will continue in local hospitals or at St Helier or St George's hospitals. Dialysis will continue to be provided in local clinics or at home.

The renal clinicians believe the St George's option offers better care for patients; the same access to top-quality care regardless of where patients live; and makes the best use of new investment in buildings, technology and equipment.

The purpose of this pre-consultation business case (PCBC) is to:

1. Set out the aims of the proposal alongside the current geographical spread and demography of renal patients, and the services and care they receive via St Helier and St George's teams
2. Explain the clinical case for change including a range of challenges facing the renal service and, importantly, the lessons of providing effective planned and unplanned care during COVID-19
3. Provide information on how the clinical model has been developed, which includes activity and financial modelling, refining options, engagement to date and the impact assessment, including travel and transport and the impact upon people with protected characteristics
4. Describe our approach to engagement with patients, public, partners and stakeholders to date and in the future
5. Detail the clinical model including the overall vision for renal services, expected benefits for patients and the identified risks and dependencies of the model
6. Illustrate the numerous stages and considerations taken during the options appraisal to move from a long list to a short-list through to the preferred option
7. Show the detailed financial appraisal including affordability for providers, the wider system and commissioners
8. Explain the approval process including governance, scrutiny and regulatory requirements
9. Set out the next steps and recommendations.

As the PCBC makes clear, our clinicians' preferred option, which is to consolidate the two renal units, would see no change for 95 percent of the services' contacts with renal patients, with all regular outpatient appointments continuing to take place in local hospitals and dialysis provided in local clinics or at home.

Given the scope of the changes, it is important that subsequent engagement is clearly focused at reaching, and hearing from, existing renal patients, their families and carers. We also plan, as is set out in the engagement section, to follow best practice and make sure NHS colleagues and partners, stakeholders, wider communities and representative groups all have the opportunity to share their views.

Contents

Document control

Document information

Property	
Owner	
Status	Draft

Revision history

Version	Date	Description
0.1–0.4	05/04/2021	Initial versions
0.5	06/04/2021	Initial draft shared for feedback
0.6	08/04/2021	Responding to initial feedback
0.7	09/04/2021	Initial review by JB ahead of CSG and RRDG review
0.8	10/04/2021	Executive summary from SW and feedback and edits from ML
0.9	13/04/2021	Responding to feedback from JB, ML and RM
0.10	14/04/2021	Feedback and edits from CG and FT
0.11	14/04/2021	Restructuring of some top-level sections; edits to S3.6
0.12	15/04/2021	Draft for provision to Clinical Senate
0.13	18/04/2021	SRO review pre Clinical Senate
0.14	21/05/2021	Addition of S8.1 on system/commissioner affordability
0.15–0.21	07/06/2021 – 10/06/2021	Amendments following Clinical Senate review
Draft Final	11/06/2021	JB review in advance of CSG
Final	16/06/2021	Final comments from CSG and CiC convenor

Document sign-off

Approver/governance body	Date

1 Introduction and background

This pre-consultation business case (PCBC) builds on the Improving Healthcare Together decision-making business case (July 2020) and the outline business case developed by Epsom and St Helier University Hospitals NHS Trust and St George's University Hospitals NHS Foundation Trust for a new facility for renal services (December 2020).

The decision to relocate renal services currently provided at St Helier Hospital to Sutton was taken by commissioners as part of IHT. This PCBC re-examines the location of future services and proposes a consolidated service at St George's Hospital to provide a **better quality service with better outcomes**.

In this section, we:

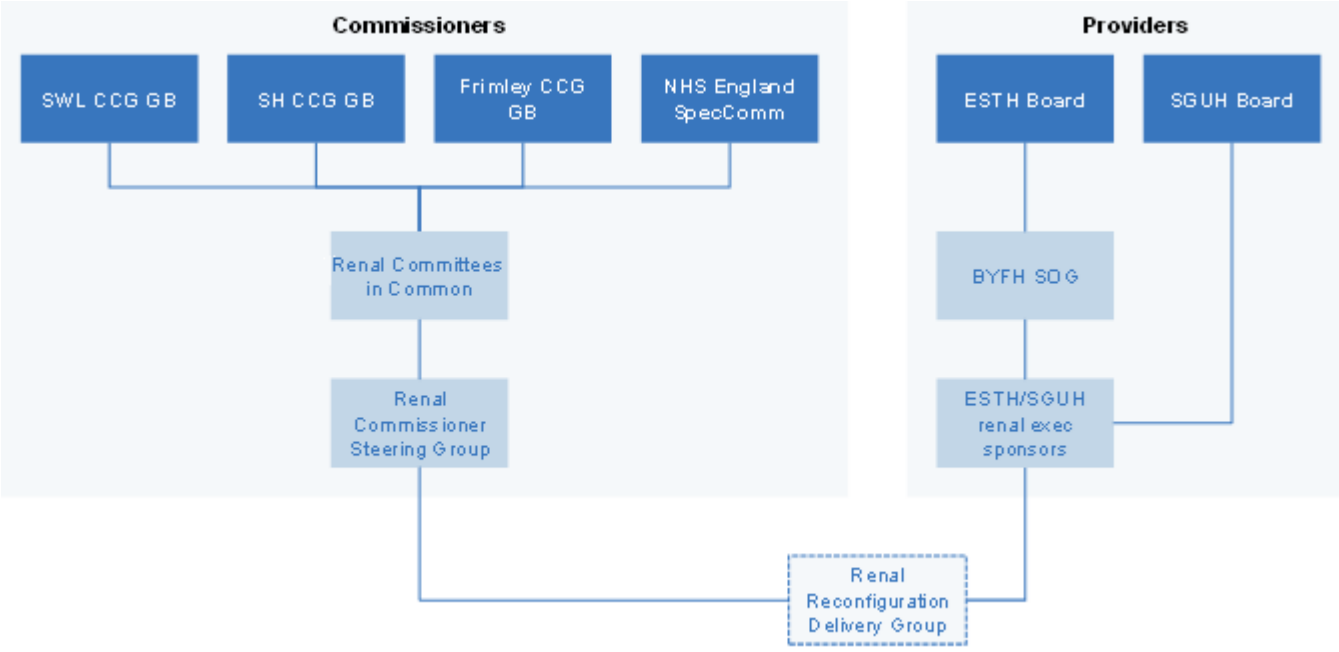
- Describe the aims of this PCBC
- Show how it builds on previous work
- Describe the geography and demographics of the main population served
- Outline the strategic priorities for renal services for the population
- Set out how services are currently provided

1.1 Aims of the pre-consultation business case

This pre-consultation business case (PCBC) has been prepared on behalf of NHS South West London CCG, NHS Surrey Heartlands CCG, NHS Frimley CCG and NHS England Specialised Commissioning. It relates to renal services provided by Epsom and St Helier University Hospitals NHS Trust (ESTH) and St George's University Hospitals NHS Foundation Trust (SGUH).

The work on this PCBC has been undertaken by the Renal Reconfiguration Delivery Group, which comprises members of staff from the lead commissioner and providers involved.

Figure 1: Governance bodies



The PCBC has been developed following a previous PCBC and consultation prepared by the Improving Healthcare Together (IHT) programme. This programme was initiated to address sustainability challenges in six acute hospital services operated by Epsom and St Helier University Hospitals NHS Trust. As part of the consultation on proposals to address these challenges, a further potentially beneficial change in relation to renal services was identified. This PCBC explores this potential change in greater detail.

The geography in scope is South West London and Surrey, particularly Surrey Heartlands and Frimley, see Figure 2 below.

Services **in scope** are:

- Inpatient renal services currently provided at St Helier Hospital including vascular access
- Related outpatient services (only those provided at St Helier Hospital)
- Services provided to St Helier renal unit patients at St George's Hospital (for example transplantation)
- Home haemodialysis training provided at St George's Hospital

Services that are **out of scope** (on the basis that these remain unchanged in all options):

- Renal outpatient services provided at District General Hospitals
- Renal dialysis services
- Provision at Frimley Hospital

1.1.1 Building on previous work

Improving Healthcare Together 2020–2030 programme

The IHT PCBC concluded that the preferred option to address sustainability challenges at ESTH was to build a new specialist emergency care hospital (SECH) at the Sutton Hospital site, whilst retaining district hospital services at Epsom and St Helier hospitals. This proposal was put to consultation as a preferred option, and subsequently became the recommendation for a decision-making business case (DMBC) which was presented to and agreed by South West London CCG and Surrey Heartlands CCG at a Committee-in-Common meeting in July 2020.

It was agreed that renal inpatient services provided by ESTH would move from St Helier to Sutton, alongside other acute hospital inpatient services.

The clinical leadership of ESTH and SGUH's renal services submitted a formal response to the IHT programme proposing that some renal services across the geography should be brought together onto one site. In their letter, the divisional medical directors and divisional director of nursing at Epsom and St Helier, and the care group lead, surgical lead, head of nursing and clinical director at St George's, made a statement of support for a joint renal unit:

> "We have been recently appointed by both trusts as the lead clinicians for renal services and as the newly appointed clinical leaders we are firmly convinced that we could make a further step change in improving the care we offer if we could formally combine forces and locate all our tertiary renal medical and surgical practice in one new purpose built facility… We are of the view that the right place for a combined renal service should be at St George's."

ESTH and SGUH outline business case

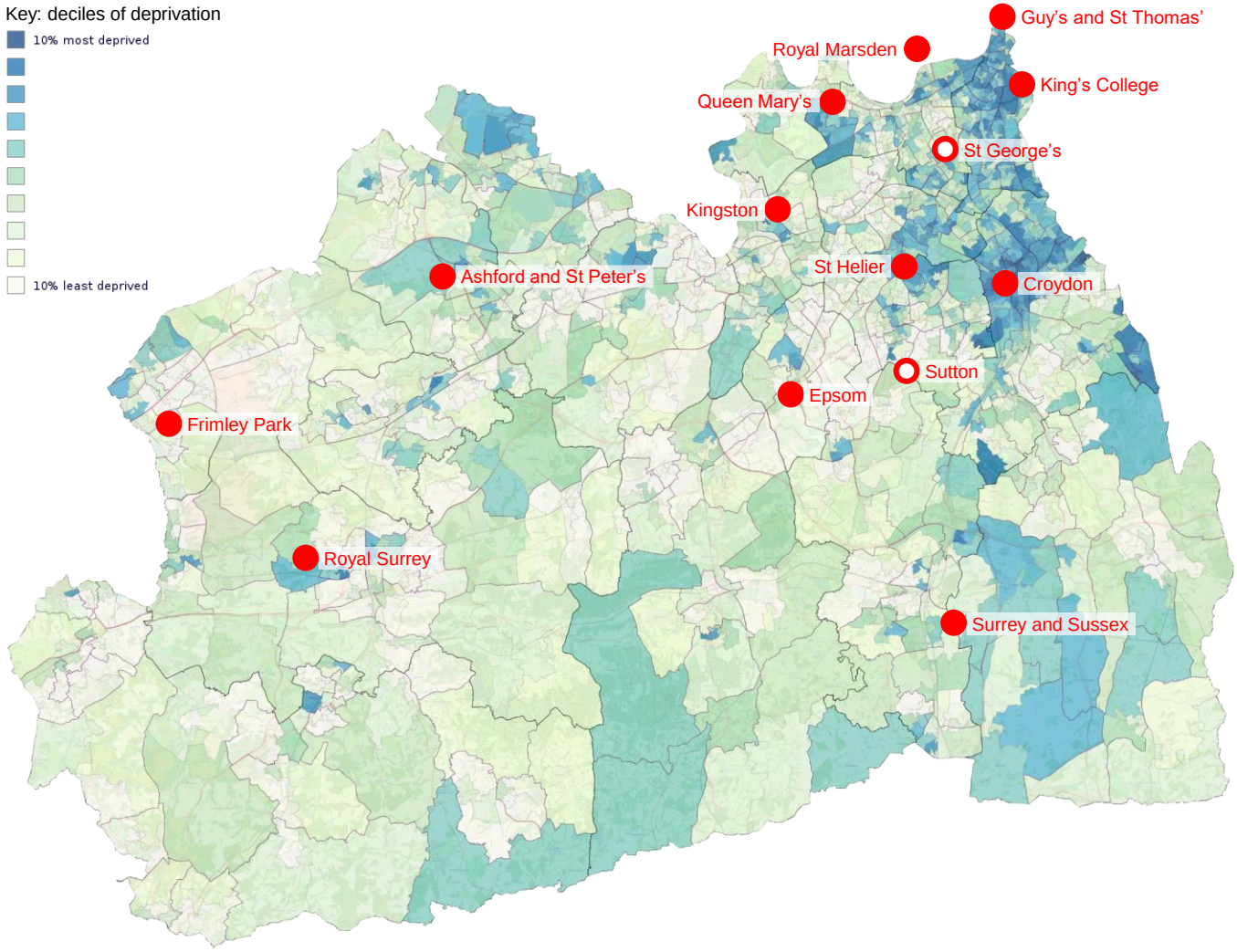
Following the IHT consultation, local commissioners requested that the trusts specifically undertake a further appraisal of the options for renal services between ESTH and SGUH. The trusts examined the options in an outline business case, which was then included in the overall 'Building Your Future Hospitals' OBC submitted to national regulators in December 2020.

In line with the statement made by clinical leaders during the IHT consultation, the trusts have in the OBC considered centralising core acute renal activity (inpatient and day case activity) at St George's, whilst continuing to provide the more regularly accessed chronic outpatient and haemodialysis services from a range of locations closer to patients' homes. This has been endorsed by the trusts' boards and commissioners are now considering this proposal, the first stage of which is this pre-consultation business case.

1.2 Geography and demographics of the region

Epsom and St Helier University Hospitals NHS Trust (ESTH) and St George's University Hospitals NHS Foundation Trust (SGUH) provide two sub-regional renal services, covering a combined population of c 2.7 million across South West London and Surrey. Services are provided more widely to people living in other parts of the South of England, but predominantly Berkshire and Sussex, and we consider the patients currently attending the two trusts in the PCBC Impact Analysis, summarised in Section 3.6.

Figure 2: Geography in scope, showing main hospitals deciles of deprivation (source: IMD Explorer 2019[1])



1.2.1 Population growth and older age

The population of England is growing at the fastest rate since the 1960s, increasing by an average by 0.5% each year. The age group growing the fastest is people aged 85 years and older, who represent 2% of the population compared to just over 1% in 1982.[2] The Office for National Statistics (ONS) calculates that all regions in England are projected to see growth in people aged 65 and over by mid-2028.[3]

Table 1 shows the total growth and growth in population aged 65 and over between 2020 and 2030[4] for South West London and Surrey. To maintain consistency with the BYFH OBC demand and capacity modelling, the future date shown is 2030.

Table 1: Estimated population growth per LA 2020–2030

Local authority	2020 population estimate	2030 population estimate	Growth 2020–2030 (%)	2020 % of population over 65 years	2030 % population over 65 years
Croydon	387,684	395,236	1.9%	14.1%	17.9%
Sutton	206,866	214,055	3.5%	15.4%	17.7%
Merton	206,431	206,979	0.3%	12.9%	15.8%
Richmond upon Thames	198,843	204,086	2.6%	16.1%	19.9%

[1] IMD Explorer 2019, Ministry of Housing, Communities and Local Government
[2] Aging and mortality in the UK, Dunnell, Popul Trends, Winter 2008;(134):6-23
[3] Subnational population projections for England: 2018-based, Office for National Statistics, 24 March 2020
[4] UK population pyramid interactive and Population projections for local authorities: Table 2, Office for National Statistics

Local authority	2020 population estimate	2030 population estimate	Growth 2020–2030 (%)	2020 % of population over 65 years	2030 % population over 65 years
Kingston upon Thames	177,731	183,724	3.4%	14.1%	16.8%
Reigate and Banstead	149,936	157,050	4.7%	18.3%	21.0%
Guildford	148,940	149,232	0.2%	16.8%	19.4%
Elmbridge	137,027	137,164	0.1%	18.8%	22.8%
Waverley	126,137	127,749	1.3%	22.3%	25.6%
Crawley	113,531	116,411	2.5%	13.7%	16.7%
Spelthorne	99,813	100,809	1.0%	18.7%	21.5%
Runneymede	89,096	91,980	3.2%	16.9%	18.8%
Tandridge	88,285	91,427	3.6%	20.1%	24.0%
Surrey Heath	88,983	88,384	-0.7%	20.1%	23.7%
Mole Valley	87,095	87,101	0.0%	23.9%	28.4%
Epsom and Ewell	80,555	82,756	2.7%	18.5%	20.8%

1.3 Strategic priorities

1.3.1 Local strategic context

Over the last decade, commissioners and speciality leaders have encouraged collaboration between renal services.

The South London Renal Clinical Alliance (SLRCA) was established with the aim of driving transformation and collaboration in kidney care in South London and Surrey. The RCA comprises:

- Guy's and St Thomas' NHS Foundation Trust
- King's College Hospital NHS Foundation Trust
- Epsom and St Helier University Hospitals NHS Trust
- St George's University Hospitals NHS Foundation Trust
- Commissioning bodies – CCGs and NHS England/Improvement
- KQuIP

SLRCA is collaborating to deliver a high-quality, sustainable renal system in South London and Surrey – prioritising areas such as growth in renal transplant, vascular access and supportive care. This follows an approach, which has been successful in other areas in England, of substantially increasing collaboration and consolidating services, designing new clinical models that deliver the highest quality acute and specialist renal care centrally, with enhanced outreach renal services supporting primary and community care.

There has been increasingly closer collaboration between the ESTH and SGUH renal units. The consultant teams from both trusts also work closely together, including holding joint management meetings. As outlined above, the two trusts work together to deliver surgical services at St Helier Hospital, and transplant nurses from both trusts are already working closely together.

There are now further drivers for deeper collaboration between ESTH and SGUH

ESTH and SGUH are increasingly collaborating across a range of clinical and non-clinical services, including via the SWL Acute Provider Collaborative. The two organisations now have a chair in common, which both see as an opportunity to deepen the partnership between the two organisations further in order to deliver better clinical quality, outcomes and patient experience for our local population

Both trusts see collaboration as strategically important. One of the four pillars of SGUH's strategy, published in April 2019, is 'closer collaboration' with other parts of the health system. Additionally, ESTH have identified closer collaboration with SGUH as a key part of their five-year trust strategy published in September 2020.

With the development of the IHT/BYFH programme, now is the opportunity to consider how renal services should be best delivered to patients in SWL and Surrey

The decision to consolidate inpatient services at the Specialist Emergency Care Hospital has already been taken. This is a once in a generation change in clinical services and presents a unique opportunity to ensure that renal services across South West London and Surrey are configured to best meet patient need. By assessing the options for the future provision of inpatient renal units, we can make sure that capital is deployed in the most effective way to ensure renal services are sustainable and high quality into the future.

The proposal is also consistent with messages from previous **patient engagement** undertaken in South London, though further patient engagement would be required to progress the proposal. For instance, in 2017, NHS England held a patient engagement event on the future of renal services in South London, and found support for the principle of consolidating vascular access surgery services, with patients prepared to travel for what is generally a 'one-off' event if outcomes are improved[5] This investment will centralise vascular access surgery on a single site.

It is also an opportunity to not just address the significant estates challenges at ESTH, but to also address the estates challenges at SGUH, including services that are delivered from temporary facilities, or from sites that are over 60 years old.

1.3.2 Strategic objectives

Strategic objectives were agreed by commissioners and the trusts' boards for use both for agreeing the clinical model and in evaluating the options to deliver it in the trusts' strategic outline case and outline business case.

Table 2: Strategic objectives

Strategic objective
1. To improve patient care, experience and safety, by: Improving the estate and environment from which acute renal services are currently provided Bringing together the strengths of both services, reducing health inequalities that result from patients living in the catchment area of one provider rather than the other Co-locating both acute inpatient and day case services with key associated acute services such as 24/7 interventional radiology and cardiology Improving patient flow by creating a larger and more efficient unit Improving patient experience by providing co-located facilities improving accessibility and supporting a seamless pathway Providing dedicated space for home therapies
2. To deliver a more financially sustainable service, by achieving economies of scale both in the utilisation of the estate and the provision of services. This will include medical, nursing and managerial workforce efficiencies.
3. To increase opportunities for research and education/training with the new centre benefiting from a concentration of patients and diversification of case mix.
4. To create a sustainable workforce by removing silo/isolated working resulting from services being spread across more than one location (SG); and increasing opportunities for nurse training with the new centre benefiting from close proximity to St George's, University of London, ultimately improving staff wellbeing, recruitment and retention.

[5] Renal services patient workshop 26 June 2017 key notes, South London Specialised Services Transformation Programme, NHS England

1.4 Current service provision

The IHT DMBC determined that inpatient renal services currently provided at St Helier Hospital would be relocated to a future facility at Sutton. Therefore, from the perspective of this PCBC, Sutton is the baseline or "current" location. We summarise below the existing services and facilities.

The current provision of renal services is outlined in Table 3 below:

Table 3: Summary of service provision and facilities at the two hospitals

Trust	Service provision	Facilities
St George's Hospital	• Inpatient nephrology (including acute haemodialysis, acute kidney injury, vascular access surgery and transplantation) • Home haemodialysis and peritoneal dialysis • Outpatient acute and chronic haemodialysis • Outpatient clinics	• 18 inpatient nephrology beds, with an additional 5 beds of activity to account for outliers and 85% occupancy • 5 acute dialysis beds within the renal ward and next to the inpatient beds • 6 dialysis stations within a trailer, separated from the renal ward • No day care beds • Surgical theatres – not dedicated; access to c.4–5 regular theatre sessions per week and use of the CEPOD emergency theatre list as required • 1 procedure room • Multiple outpatient consultations rooms • 5 rooms/stations for PD and HD patients training and assessment • Renal technicians' workshop • Multiple administration offices (consultants, junior doctors, specialist nursing, support staff, admin and management) • Use of c.3–4 interventional radiology sessions per week
St Helier Hospital	• Inpatient nephrology (including acute haemodialysis, acute kidney injury and vascular access surgery) • Home haemodialysis and peritoneal dialysis • Outpatient acute and chronic haemodialysis • Outpatient clinics	• 45 inpatient nephrology beds (also used for acute dialysis) • 9 day case beds • Surgical theatres – not dedicated to renal, and typically using c.4–5 theatre sessions per week • 1 procedure room • 7 outpatient consultations rooms • 11 rooms/stations for PD and HD patients training and assessment • Administration offices (consultants, junior doctors, specialist nursing, support staff, admin and management) • Renal technicians' workshop • The renal research institute, • Use of c.3 interventional radiology sessions per week

ESTH does not provide any surgical services for renal except those provided in conjunction with SGUH, such as vascular access surgery which is provided by SGUH clinicians at St Helier Hospital. In 2018 ESTH opened an inpatient ward at Frimley Park Hospital which provides a consultant-led service for inpatient nephrology and acute dialysis. Both ESTH and SGUH also provide a number of other services away from St Helier and St George's Hospitals in local hospital and community settings. These include outpatient clinics, dialysis satellites for chronic dialysis patients and nephrology support to other hospitals treating renal patients.

The activity provided by both trusts within hospital inpatient renal services is outlined below. Note, this excludes activity within the community (e.g. dialysis satellites) delivered by each ESTH and activity carried out at/by other providers, which is out of scope for this business case and not changed by this investment. The in-scope column indicates the activity that is in scope of the new renal unit and would therefore need to be provided for in the new unit.

Table 4: Summary of activity

		ESTH			SGUH		
PODs	**TFC**	**Total renal activity**	**Activity in scope for new unit**	**Activity in scope (%)**	**Total renal activity**	**Activity in scope for new unit**	**Activity in scope (%)**
Adult day case dialysis	Nephrology	167,546	7,487	4%	73,652	7,729	10%
Adult day case other		2,445	2,445	100%	1,096	204	19%
EL adult inpatient		512	509	99%	292	292	100%
NEL adult inpatient		1,076	1,068	99%	500	500	100%
Outpatient first		2,589	237	9%	973	973	100%
Outpatient follow-up		32,485	8,284	26%	4,523	4,523	100%
Outpatient first – virtual		595	0	0%	0	0	NA
Outpatient follow-up – virtual		564	0	0%	12	12	100%
Adult day case other	Transplantation	132	112	85%	121	121	100%
EL adult inpatient		153	151	99%	147	147	100%
NEL adult inpatient		0	0		160	160	100%
Outpatient first		1	1	100%	452	452	100%
Outpatient follow-up		1,249	1,249	100%	3,694	3,694	100%
TOTAL		**209,345**	**21,544**		**85,622**	**18,807**	

Of the total ESTH renal activity likely to be affected, approximately 39% is commissioned by SWL CCG, 31% is commissioned by Surrey Heartlands CCG, 14% is commissioned by NHSE Specialist Commissioning with the remaining number commissioned by other CCGs. Table 5 provides a breakdown of activity by commissioner[6]:

Table 5: Split of ESTH inpatient renal activity by commissioner (2019/20 commissioner configuration)

Commissioner	% activity	% income
NHS Sutton CCG	13.5%	13.3%
NHS Merton CCG	4.4%	4.7%
NHS Croydon CCG	18.7%	19.1%
NHS Wandsworth CCG	0.2%	0.2%
NHS Kingston CCG	2.2%	1.7%
NHS Richmond CCG	0.1%	0.1%
Sub-total: NHS South West London CCG	**39.1%**	**39.3%**
NHS Surrey Downs CCG	9.2%	8.6%
NHS East Surrey CCG	5.2%	6.4%
NHS North West Surrey CCG	11.2%	11.2%
NHS Guildford and Waverley CCG	5.7%	4.7%
Sub-total: NHS Surrey Heartlands CCG	**31.3%**	**31.0%**
NHSE Specialised Commissioning	14.2%	14.9%
NHS North East Hampshire and Farnham CCG	3.9%	2.5%
NHS Crawley CCG	3.8%	5.0%
Others	7.7%	7.2%
Total	**100%**	**100%**

[6] NHS South West London CCG and NHS Surrey Heartlands CCG were both created from mergers of previous CCGs in April 2020; NHS North East Hampshire and Farnham CCG became part of Frimley CCG and merged with Surrey Heath and East Berkshire in April 2021. North East Hants became part of Frimley CCG (merged with NHS Surrey Heath CCG and NHS East Berkshire CCG) in April 2021. Crawley CCG became part of West Sussex CCG in April 2020.

2 Case for change

This section of the PCBC describes the case for change, why the change is needed, and the challenges associated with the change. It also describes the challenges facing current renal care that the proposed relocation will help address. The challenges are broken down as follows:

- **Epidemiology and public health challenges:** The national prevalence of chronic kidney disease has been estimated at 5,167/100,000 population, a growth of 11.4% between 1990 and 2017. Around 630,000 people in the UK are being treated for end stage CKD with 40–45,000 premature deaths per year. CKD is five times more likely to affect black, Asian and minority ethnic communities. Major risk factors are uncontrolled diabetes and hypertension.
- **Clinical challenge:** Patients from various parts of the region have unacceptable varying inequalities in their treatment due to the differences between St Helier and St George's hospital. This ranges from differences in interventional radiology and vascular access, access to surgical input, out of hours cover, access to other acute services,
- **Workforce challenges:** Neither service is as efficient as it could be, and as a result there is significant opportunity to provide better services to patients. Neither hospital is big enough to be fully efficient meaning there are inefficiencies staffing and rota planning, access to theatre, clinical research and training of staff which would be address with a co-location.
- **Estates challenges:** The estate of both services has suffered from long term under investment, and as a result the buildings are not fit for purpose and both services lack sufficient capacity for growth. The renal services at St Helier Hospital are contain in portacabins which are over 30 years old and are beyond economic repair. Whilst at St Georges Hospital the renal facilities are split over different wings of the hospital as a temporary measure for historical reasons which is not operationally preferable and is unsustainable.

As outlined above, acute and specialist renal services provided by the two trusts are provided to the population of South West London and Surrey, a geography spanning c.40 miles East to West and c.25 miles North to South, The two hospitals are four miles apart. While there is close collaboration between the two units, there are three significant reasons to explore how acute and specialist renal services could be delivered better:

1. Patients from different parts of the region experience **variation** in their NHS treatment
2. The estate of both services has suffered from **exceeded its natural life and is of poor quality**, and as a result the buildings are not fit for purpose.
3. Neither service is as efficient as it could be, and as a result there is **significant opportunity to provide better services to patients**

In addition to the local context, this business case has been informed by regional and national priorities for renal services. These include:

- Service frameworks produced by the Department for Health and Social Care
- National service specifications and incentives (such as the best practice tariffs) incorporated into national service specifications produced by NHSEI
- The Renal Association guidelines and best practice
- The priorities of the South London Renal Clinical Alliance
- The Getting It Right First Time (GIRFT) reports for each trust

In particular, these have highlighted two longstanding priorities that must be explored and delivered through a new clinical model. These are:

1. **Vascular Access**: There is a national drive to increase the proportion of patients who receive dialysis treatment via definitive access (either arteriovenous fistula (AVF) or arteriovenous graft (AVG)) to 85%[7]. This is supported by a Best Practice Tariff (BPT) whereby providers receive an increase tariff for dialysis treatment when they achieve a rate of 80% of patients receiving dialysis via a functioning AVF or AVG[8]. Currently both ESTH and SGUH achieve 47% so there is significant opportunity for improvement. While nationally, the ability to achieve a vascular access programme that meets these targets has proved difficult for almost all units, the intention of both trusts is to be comparable to the best performing renal units.
2. **Transplantation Surgery**: There is a national drive to increase transplantation numbers by improving access to transplant and where possible pre-emptive transplant, significantly reducing premature mortality from end stage kidney disease and reliance on haemodialysis.

[7] Clinical practice guideline: vascular access for haemodialysis (6th edition) Renal Association, 2015
[8] 2019/20 National Tariff Payment System – a consultation notice: Annex DtD, NHS England and NHS Improvement, January 2019

2.1 Epidemiology and public health challenges

2.1.1 Risk factors for kidney disease

The two key risk factors for chronic kidney disease (CKD) are diabetes and hypertension. GP-recorded prevalence of each for the relevant area is as follows:

Table 6: Risk factors for chronic kidney disease

Area/CCG	Diabetes mellitus	Hypertension
England	7.08%	14.10%
South West London	5.66%	10.57%
Surrey Heartlands	5.77%	13.22%
Frimley	6.78%	13.58%

Rates of diagnosis of diabetes – particularly T2 diabetes – are rising rapidly, with a high association with later-stage CKD. T2 diabetes prevalence is also particularly associated with health inequalities and rates are higher in less affluent, more deprived communities. All of the ICSs impacted by this proposed change have developed strategies to prevent, identify and more effectively manage Type 2 diabetes in community settings and identify probable complications such as CKD.

2.1.2 Chronic kidney disease

The national prevalence of chronic kidney disease (CKD) has been estimated at 5,167/100,000 population, a growth of 11.4% between 1990 and 2017[9]. Around 630,000 people in the UK are being treated for end stage CKD with 40–45,000 premature deaths per year. CKD is five times more likely to affect black, Asian and minority ethnic communities. Major risk factors are uncontrolled diabetes and hypertension. A study published in 2020 identified that 44% of people with CKD may be undiagnosed[10]. In 2019/20, population prevalence of CKD (at stages 3–5) as identified via the GP Quality and Outcomes Framework across South West London, Surrey Heartlands and Frimley was as follows for the affected areas:

Table 7: Prevalence of chronic kidney disease in London and the South East

Area/CCG	Prevalence
England	**4.05%**
London	**2.41%**
• South West London	2.34%
South East	**3.93%**
• Surrey Heartlands	3.75%
• Surrey Heath	3.00%
• North East Hants and Farnham	3.59%
• East Berkshire	3.50%

Although no recent studies are available, public health projections from 2014 suggested that **CKD stages 3–5 would increase by c.1 million patients nationally (31%) between 2021 and 2026**. Whilst this will not directly translate into hospital activity, it does support the requirement for additional acute capacity to be put in place over the coming years.

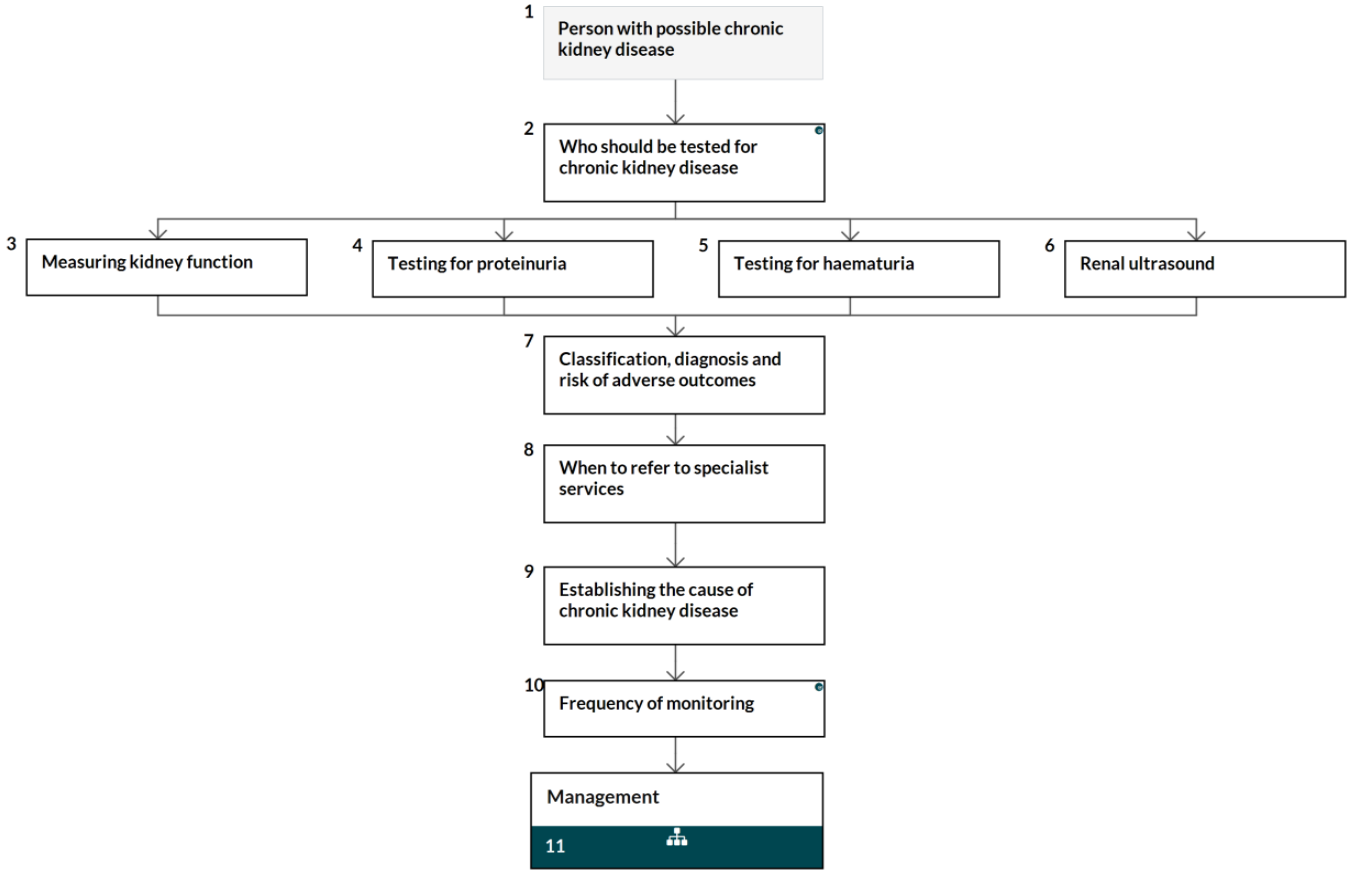
[9] Global, regional, and national burden of chronic kidney disease, 1990–2017: a systematic analysis for the Global Burden of Disease Study 2017, Lancet, February 2020

[10] Prevalence of chronic kidney disease in the community using data from OxRen: a UK population-based cohort study, BJGP 2020

2.1.3 The pathway into hospital-based renal care

NICE guideline CG182 (published in 2014) sets out the detailed clinical guidelines for the management of adult chronic kidney disease. More recently, NICE have published interactive pathways[11] setting out the key factors to consider in the identification, management and referral to specialist care for patients with CKD. Although it is not possible to include these pathways in full here, the chart below summarises some of the key aspects of the NICE advice.

Figure 3: Assessment and monitoring of chronic kidney disease



One of the key aims of the South London Renal Clinical Alliance is to develop virtual clinic models, which would allow a patient to be managed proactively across the interface between primary and secondary care services without repeated attendance at hospital-based clinics.

2.1.4 Renal replacement therapy

The proposal must consider the capacity of the renal services to accommodate the expected increase in demand on the services due to the expected increase in people over 65 years old.

Chronic kidney disease (CKD) is associated with old age,[12] and according to John Hopkins University people over 60 are more likely to develop CKD than not.[13] The UK Renal Registry (UKRR) for acute kidney injury (AKI) in England for 2018[14] shows that of all the acute kidney injury episodes, 67% of them were in adults over the age of 65. Likewise, the Renal Association in their 22nd Annual Report of 2018[15] also showed the following regarding age and renal care:

- Median age of renal replacement therapy patients was 64 years
- Median age of kidney transplant patients was 55.2 years
- Median age of in centre haemodialysis patients was 67.4 years
- Median age of patients on peritoneal dialysis was 64.3 years
- Median age of patients on home haemodialysis was 56 years

[11] Assessment and monitoring of chronic kidney disease, National Institute for Health and Care Excellence
[12] Kidney Health inequalities in the UK – An agenda for change, Kidney Research UK, 2018
[13] Aging and kidney disease, National Kidney Foundation
[14] Acute kidney injury in England, UK Renal Registry, 2018
[15] 22nd Annual Report: Data to 31/12/2018, UK Renal Registry, 2018

Figure 4 (reproduced from work by NHS England[16]) shows the trends in numbers of patients new to therapy (incidence) and numbers of existing patients (prevalence) on renal replacement therapy (RRT) as at 31 December of each year 2013–2017 (source: UK Renal Registry). The pool of prevalent patients will be affected by incidence, mortality (or survival), withdrawal from treatment or patients moving to a different provider.

Overall, for both London and England, rates of increase for patients new to treatment (incidence) are the same as rates of increase for existing patients (prevalence) indicating that patients are leaving the prevalent pool at the same rate as numbers joining. Note that this is for all RRT (dialysis and transplant combined).

Figure 4: Patients on renal replacement therapy: Time trends in numbers and rates, London compared to England

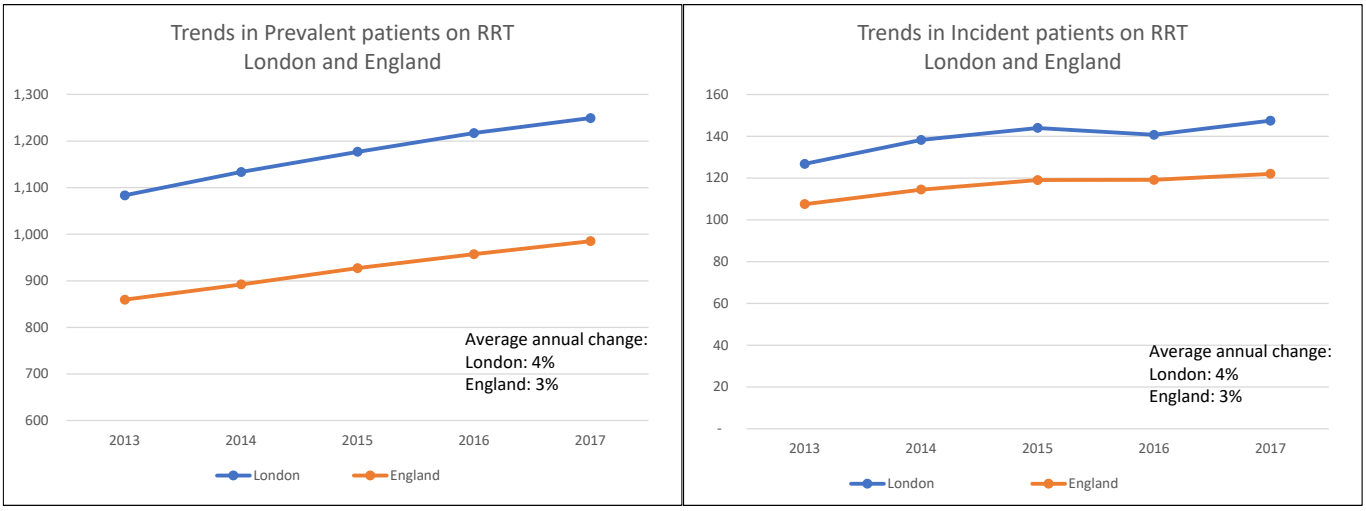
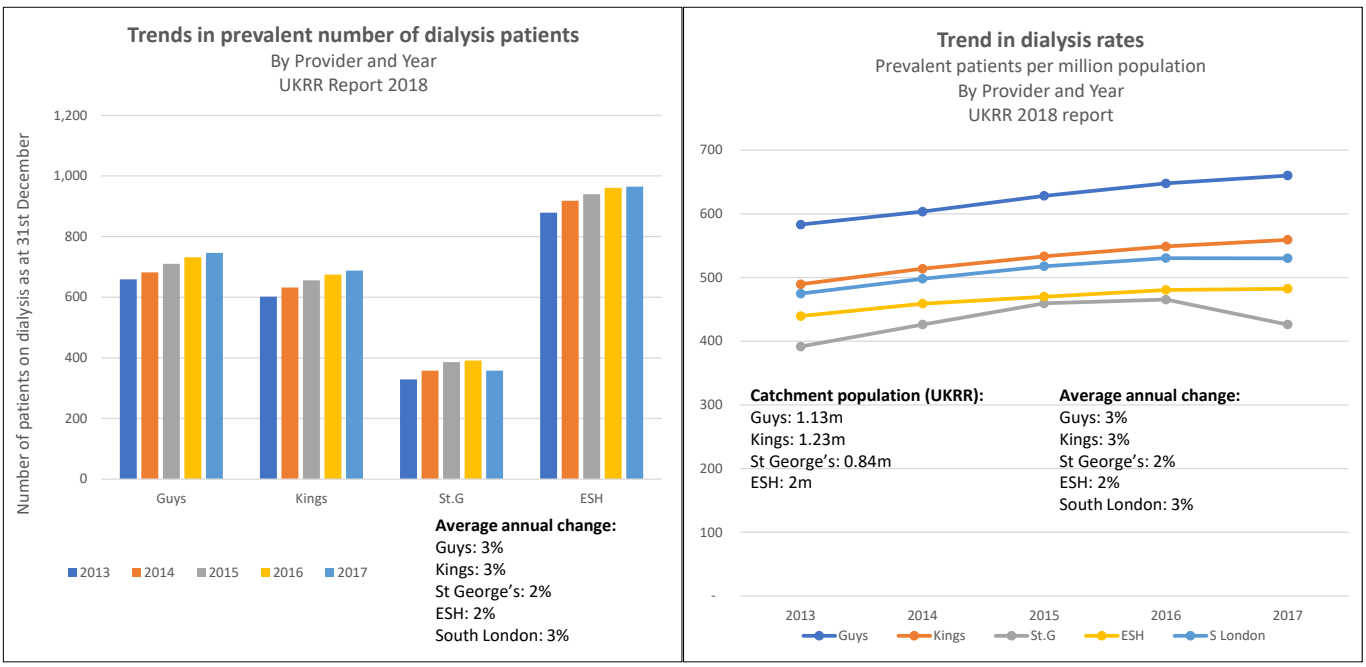


Figure 5 (reproduced from work by NHS England[16]) shows existing patients on renal dialysis (all modalities) as at 31 December of each year 2012–2017. For South London as a whole, numbers of patients on dialysis are increasing by an average of 3% per year. The prevalence rates are produced using the estimated catchment populations for each provider as stated in the UKRR report. These catchment populations have not been updated year to year so these rates do not capture the effects of underlying population changes. However, they are shown here to be able to compare treatment rates per provider as well as absolute numbers. These show the trends in renal dialysis growth are consistent between ESTH and SGUH units at c. 2% per year.

Figure 5: Patients on dialysis by provider: time trends in numbers and rates (UKRR 2018 report)



[16] Predicting future numbers of dialysis patients in London, Croucher, NHS England, 2 October 2019

2.1.5 People living in deprivation

There is growing evidence to suggest that living in deprivation has an impact on developing CKD. Kidney Research UK said in their 2018 report[17] that the reason for this is because people living at the lower end of the social-deprivation spectrum are more likely to:

- Develop CKD due to being exposed to the risks of developing CKD such as obesity, diabetes, and hypertension
- Progress faster through the stages of the condition leading to dying earlier of kidney failure
- Be diagnosed at a later stage of the disease due to lack of health literacy
- Receive worse outcomes as people in deprivation have worse survival rates related due to the lack of adequate housing and space

In addition:

- Children born with a low weight are more likely to develop CKD later in life; more children are born with low weight in socially deprived areas
- Kidney patients are more likely to slip into deprivation

Within the catchment area, local authorities with greater deprivation (shown in Figure 2 as lower index of multiple deprivation deciles) – and therefore likely to have greater need of renal services are:

- Croydon
- Sutton
- Merton
- Crawley

However, within each of these areas the relative levels of deprivation are not uniform. For example, in Croydon, the majority of very deprived areas are to the north of the borough (and closer to SGUH) with a further pocket on the eastern edge. In Sutton, deprived communities are generally to the north of the borough but with some in the south also. Both SGUH and ESTH units currently have areas of both significant affluence, and significant deprivation, within their catchment, and given that there is scope to improve clinical provision at both units, any positive developments in clinical care would positively benefit deprived communities across the combined footprint.

2.2 Clinical challenge

Patients from different parts of the region experience unacceptable inequalities in their NHS treatment.

GIRFT data/reports from 2018 showed significant unwarranted variation between the two units. Whilst there have since been improvements across both services, it remains the case that both services have examples of excellent practice, which could be shared across the two. Equally, both have areas of challenge that could be addressed through collaboration with the other: Epsom and St Helier patients experience worse access to surgeon input, out of hours IR and other specialist services and St George's patients see significant barriers to accessing best practice care in vascular access and provision to support home therapies.

2.2.1 Interventional radiology and vascular access

Currently 75% of acutely unwell inpatients (those at St Helier Hospital) have no on-site access to interventional radiology or access to a renal surgeon out of hours. On several occasions patients have required immediate intervention and therefore needed transfer at night from St Helier to St George's, e.g. for bleeding from an abdominal aneurysm caused by vasculitis, rupture of an arterio-venous fistula and acute infection and bleeding of a haematoma around a transplant. In all cases transfer was difficult to organise and delayed intervention. This negatively impacts the vascular access service provision and the related patient outcomes and experience. Although this may not only affect renal patients, it is more likely to affect renal patients than the general inpatient population treated at St Helier, and the future SECH.

2.2.2 Access to surgical input

With renal surgeons based from SGUH, ESTH patients have less access to surgical opinions, outpatients and assessment clinics for both Vascular Access and transplant. This disparity was highlighted by GIRFT.

GIRFT also highlighted that SGUH has a relatively low proportion of patients that are pre-emptively listed while ESTH is close to the national average with some room for improvement.

2.2.3 Other acute specialties

Currently, patients at St Helier Hospital do not have access to the same range of acute specialties as those at St George's Hospital. A particular example is acute cardiovascular services. The pathology of renal failure results in renal patients frequently having cardiovascular problems but their simultaneous need for dialysis means they need to be treated in a centre offering both services. Currently St Helier patients waiting for coronary angiography at

[17] Kidney Health inequalities in the UK – An agenda for change, Kidney Research UK, 2018

St George's can wait for transfer for a number of days and may end up being discharged rather than having the procedure as an inpatient, further increasing their risk.

The national service specification makes clear the importance of co-locating key associated services:

> "Haemodialysis patients are dependent on the maintenance of 'vascular access' to allow repeated connection to the HD machine. The need to maintain a satisfactory vascular access coupled with a high susceptibility to cardiovascular disease, dialysis patients present some of the most serious challenges encountered by vascular surgeons and interventional radiologists. A significant proportion of these interventions are required to be delivered urgently or as an emergency. The safety of dialysis patients while hospitalised with vascular complications of their disease requires special consideration."
>
> **NHSE service specification, ICHD**

> "Providers shall ensure that haemodialysis patients are managed in a safe environment when hospitalised. There should be 24/7 and urgent on-site cover available from vascular surgeons, interventional radiologists, nephrologists and acute dialysis team. Patients should not be transported to another hospital for their regular maintenance dialysis or for 'acute' dialysis during a period of hospitalisation unless under exceptional circumstances."
>
> **NHSE service specification, ICHD**

2.2.4 Out of hours cover

Currently, both services provide junior doctor cover over night including non-resident registrar cover. Bringing the two services together will ensure this service is more sustainable, resilient and efficient.

2.2.5 Home therapies

Currently there is disparity in uptake of home therapies offered between the hospitals. Additionally, SGUH do not have an assisted PD programme and no dedicated training area for home HD.

2.3 Workforce challenges

Neither service is as efficient as it could be, and as a result there is significant opportunity to provide better services to patients.

2.3.1 Staffing and rotas

Neither service is quite big enough to enable an optimal medical rota that provides sufficient, on-site cover at all times. This is outlined above, where SGUH are often not able to provide middle grade medical cover over-night.

Staffing within the renal dialysis trailers at SGUH needs to be maintained at 1:3 because the staff and patients are isolated from the rest of the renal service on the St George's site. This is inefficient and sub-optimal.

These staffing challenges are in the context of significant workforce challenges in specialist renal staffing across the UK.

2.3.2 Access to theatres and interventional radiology

Neither service, on its own, has sufficient activity to justify dedicated theatre sessions all week for renal patients. As a result, emergency activity is often delayed as there are not available theatre sessions. This limits both services ability to provide best practice care, such as providing increased rates of vascular access surgery.

2.3.3 Clinical research

Currently there is a stand-alone research unit at the St Helier site whereas the university and medical school are at St George's. While St Helier Hospital has a greater number of patients available for clinical trials, it does not have the same facilities and resources available to it as a large teaching hospital, such as St George's, does.
St George's on the other hand does not have the scale of patient cohort or clinical service to fully capitalise on the potential of being collocated with the University.

2.3.4 Staff training

Both services have to go elsewhere for some staff training and education programmes as they do not have the capacity to provide this in house, more efficiently.

2.4 Estates challenges

The estate of both services has suffered from long term under investment, and as a result the buildings are not fit for purpose and both services lack sufficient capacity for growth.

Figure 6: Renal dialysis trailers at SGUH

Figure 7: Renal facilities at ESTH

2.4.1 St Helier

The St Helier service is largely provided from portacabins that have long outlived their intended useful life. The St Helier service cannot be refurbished at the current location as the portacabins are 30 years old, they are subsiding and far beyond economical repair. Splitting the elements of the service will increase risk to patients, as it will increase the distance between the majority of consultants and their patients and would introduce inefficiency into the model of care and therefore is not a viable option.

2.4.2 St George's

During 2016 the CQC mandated that SGUH relocated renal services from Knightsbridge Wing as the clinical environment was deemed unsafe. The trust had no option but to urgently relocate the services to alternative accommodation. At this time, given the urgency and limited space, mobile units were procured to allow business continuity for haemodialysis on-site at the hospital. The trust could no longer continue to provide the full complement of 30–33 dialysis stations on-site. The service responded to deal with this by increasing to 24 stations with the outsourced dialysis stations private provider Fresenius, as well as re-providing 6–7 dialysis stations in rented trailers on-site. The trust envisaged the rental arrangement to be a temporary situation and expected a capital investment to resolve the situation in the long term. However, these units remain in place and this is not a sustainable solution.

Additionally, the existing layout of services is split over several different wings and sub-optimal estate; should a patient suffer a cardiac arrest within the Courtyard Clinic or the dialysis trailers they could only be transported to an inpatient area by calling 999. While this is a low frequency occurrence and has been risk assessed to mitigate risks, it is not an optimal pathway.

2.4.3 Capacity

Lastly, both ESTH and SGUH operate renal services well above the best practice bed occupancy rates. Additionally, SGUH operate with a regular number of outliers (renal patients in other parts of the hospital). The inpatient bed capacity is not sufficient for current demand, which is forecast to grow over the next 10 years.

3 Developing the clinical model

The Improving Healthcare Together DMBC included a clinical model that relocated most specialised services currently provided at St Helier Hospital, including inpatient renal services, to a new facility at Sutton. This model was agreed in July 2020 as part of the wider reconfiguration of services in South West London.

The clinical model for renal services was revisited later in the year when ESTH and SGUH developed the BYFH OBC. Clinical leaders considered in detail how the trusts would provide modern renal services that addressed their respective challenges to deliver the best outcome for patients. This model was refined over several workshops throughout 2020 until agreed by both trusts.

Commissioners and trusts have adopted the HM Treasury Green Book approach to developing a long list of options, using the 'options framework'. This has enabled a standard approach to identifying potential solutions to address the case for change and deliver the clinical model. By identifying the spending objectives and the desired critical success factors a short list of options was devised which withy be further subjected to a full economic appraisal by bringing together the cost, benefits, and risks for each option in an objective way.

To understand the impact on current patients an Impact Assessment (IA) was undertaken to quantify the number of patients impacted by the change and to estimate the impact on them. The impact on people with protected characteristics was examined through an equalities impact assessment. The IA showed that the number of journeys affected is small (4.4%) but most will take longer, whether by patient transport services, public transport, or private vehicle. The IA identified some additional mitigating actions for consideration.

As part of the IHT process, CCGs in South West London and Surrey Heartlands convened a Committees in Common (CiC) to consider and make decisions in relation to key parts of the process. South West London CCG and Surrey Heartlands CCG have made formal delegations to this CiC which permit decision-making on behalf of the entire board. Using the same terms of reference, a renal CiC has been convened, with amendments to the membership to include Frimley CCG and NHS England Specialised Commissioning.

3.1 Process to develop clinical model

To address the challenges outlined in the case for change, a joint project to consider how renal services could be best delivered for our population. The project established a Renal Clinical Advisory Group that included clinical leaders from ESTH and SGUH. The group was tasked with developing a new clinical model for acute renal services that meets the needs of the combined populations based on clinical standards and evidenced based best practice.

The approach to developing the clinical model was through three phases.

3.1.1 Phase 1: Development of the emerging clinical model

Through a series of workshops held in 2020, the clinical leaders developed a new model of care for renal services. The considered all the different services provided to renal patients, the critical co-dependencies and adjacencies required for renal services, and how the trusts would provide modern renal services that addressed their respective challenges and delivered the best outcomes for patients.

Through a series of facilitated workshops, the clinical model was refined and subsequently agreed by both trusts as the most suitable approach to providing renal services for the combined populations.

The overall process for developing the clinical model in phase one involved:

1. **Initial development of the high-level clinical vision, patient pathways and critical questions**

   Establishing clinical standards and best practice guidance
   Creation of high-level clinical vision and initial patient pathways

2. **Developing, iterating, agreeing clinical models and pathways**

   Agreement of clinical standards and best practice pathways guidance
   Agreement of the clinical case for change
   Agreement of the 'as-is' and 'to-be' patient pathway and associated issues
   Testing critical issues arising from agreed 'as-is' and 'to-be' clinical model/pathways
   Consideration of interdependencies with other subgroups.

3. **Finalisation of the emerging clinical model**

   Finalisation and agreement of the 'to-be' clinical model both in its totality and at pathway levels
   Confirmation of relevant assumptions for finance, activity and estates modelling
   Interdependencies and necessary protocols for the overall clinical model

3.1.2 Phase 2: Testing with clinical model with a wider group of stakeholders

The proposed clinical model was then tested with a wider audience to ensure it delivered current and emerging best practice, was aligned with the national direction of renal services and met the need of the local populations. This engagement included testing the clinical model with:

- Local and national commissioners who provided comments on the proposed clinical model, and assumptions on activity and growth
- The South London Renal Clinical Alliance (SLRCA) who provided comments on the clinical model, alignment with best practice and opportunities for prevention and community care to further enhance the service.
- The leads of the respective Kidney Patients Associations (KPAs)

This led to further refinement of the clinical model and also the strengthening of the case for change and proposal.

3.1.3 Phase 3: Clinical senate review

This PCBC reflects in a number of respects, input from the combined clinical senates of London and South East England who convened a panel in May 2021 to review the previous draft PCBC and provide feedback. The Clinical Senate's recommendations and our response are appended in full. In a number of areas, we would anticipate addressing the Senate's recommendations in full at subsequent stages of the process of implementing an agreed proposal.

3.2 Process to develop finance and activity model

To develop the finance and activity model for this proposal, a dedicated finance and activity group was established by the project. This included finance representation from both trusts, with all outputs signed off by both trusts' CFOs. The group worked through the following process to support the OBC:

1. **Agreeing the in-scope activity and establishing the baseline for both trusts**

   Renal activity and the associated income and expenditure were identified for each trust

   Agreed growth and inflation rates were applied to current activity, income and expenditure. It was critical to align this approach with BYFH to ensure consistency, except where there were material and justifiable differences. An example is transplant growth, which is forecast to grow at a higher rate over the coming years due to additional investment in services at SGUH and the projected growth in transplantation as a mode of treatment for kidney disease.

   The BAU position was then developed for each trust. For ESTH, this aligned with the BAU position for the BYFH programme.

2. **Agreeing the impacts of the options on the BAU position**

   Activity: Any impacts of the proposed clinical model and options were captured. These included Length of Stay improvements and intentions to transfer inpatient activity to day cases, and an increase in the proportion of patients receiving dialysis through permanent vascular access.

   Financial benefits: The benefits of the options were captured by the Clinical Advisory Group, with the finance and activity group considered what could be considered cash releasing. These included staffing benefits, estates savings and research and education benefits.

   Capital costs: Each option was designed and costed by professional estates advisors based on the schedule of accommodation and associated space required agreed with the clinical groups. The capital requirement and associated revenue impacts (PDC and depreciation) were captured and incorporated into the financial model

   Financial model: all the above financial impacts were captured within the Renal financial model, forecasting the net present social value and a combined I&E of both trusts' renal services for the lifetime of the new build for each of the options.

3. **Considering the financing scenarios to source the capital requirement of each option, including the impact on affordability**

   The project team have considered various different funding options, including exploring internally generated capital, Public Dividend Capital (PDC) through the National Hospital Programme and both South West London and London region capital allocations.

4. **Agreeing the financial model, and underlying assumptions with key stakeholders**

   Regional and national commissioners and regulators: the assumptions and outputs of the financial model were worked through and agreed with both commissioners and regulators.

3.3 Process for options development

The commissioners and trusts adopted the HM Treasury Green Book approach to developing options[18], using the 'options framework'. This has enabled a standard approach to identifying potential solutions to address the case for change and deliver the clinical model.

The options framework considers both clinical and capital aspects and serves as a consolidated options appraisal for the commissioners and providers. The dimensions of the options framework are shown in Table 8.

Table 8: Summary of the options framework

Dimension	Description	How we interpret this dimension	Appraisal
Scoping options – choices in terms of coverage	The choices for potential scope are driven by business needs and the strategic objectives at both national and local levels.	The clinical services in scope	Section 5.1.1
Service solution options – choices in terms of solution	The choices for potential solution are driven by new technologies, new services and new approaches and new ways of working, including business process re-engineering.	How and where the services are provided	Section 5.1.2
Service delivery options – choices in terms of delivery	The choices for service delivery are driven by availability, capability and capacity.	The facility required to house the service	BYFH OBC
Implementation options – choices in terms of the delivery timescale	The choices for implementation are driven by the ability of the supply side to produce the required products and services, value for money, affordability and service need.	How the facility could be delivered	BYFH OBC
Funding options – choices in terms of financing and funding	The choices for financing the scheme.	How the facility could be funded	BYFH OBC

3.3.1 Approach

Overall, the approach is as shown in Figure 8. A key factor of the appraisal throughout is the delivery of a realistic option so that the system can benefit rapidly from an enhanced service and renal care facility, but which is also affordable within the financial constraints of both trusts and the wider health economy.

Figure 8: Approach to the options appraisal

3.3.2 Critical success factors

The critical success factors used to evaluate the long list have been discussed and agreed through a meeting of representatives of both trusts. These critical success factors were agreed to appropriately distinguish between the options on the long list, across six main domains, as shown in the table below.

Table 9: Critical success factors

HMT category	CSF	Description – how we will interpret the CSF
Strategic fit and business needs	CSF1: Strategic fit	• Contributes to delivery of the trusts' corporate and clinical strategies/priorities and aligns with the trusts' estates masterplan and strategy • Contributes/aligns to the wider system clinical and estates strategies • The service offered must align with commissioning intentions • Addresses the case for change, specifically: Improving the estate and reduce critical infrastructure risk

[18] The Green Book: appraisal and evaluation in central government, HM Treasury, 2020

HMT category	CSF	Description – how we will interpret the CSF
		Reducing unwarranted variation Providing co-location with other necessary services
	CSF2: Care quality and patient experience	• All patients can access the right care, at the right place, at the right time and have an excellent experience • Compliance with the following from 2025 NHS clinical standards for renal services Current statutory building requirements Current health building design best practice Equality Act 2010 accessibility requirements Build quality/zero defects requirements upon completion Build a net zero carbon building
	CSF3: Future flexibility	• Able to accommodate projected activity to 2030 • Delivers a clinically adaptable estate to respond to future unforeseen NHS pressures
Potential value for money	CSF4: Economy – *Defer to shortlist appraisal*	• Value for money can be demonstrated: cost effective for delivery of core benefits • Effective utilisation of NHS estate • Optimising the phasing of work in order to minimise costs
Supplier capacity and capability	CSF5: Commercial viability	• Can be delivered and made operational by 2025 Design/build complexity is feasible within this timescale Supplier(s) have capacity to deliver within this timescale
Potential affordability	CSF6: Affordability	• Within capital allocation/envelope (including fit-out and equipment) to achieve required capacity and quality (whole life) • Operating revenue requirement affordable (capital charges, maintenance, service change costs) – the revenue changes must be affordable within tariff
Potential achievability	CSF6: Deliverability	• The service can be built and made operational by 2025. In particular: Legal and commercial complexity is manageable within this timescale Trust(s) has/have the bandwidth to manage the procurement and risks associated with it Risk profile is acceptable to all parties • Can be implemented while maintaining continuity, quality and safety of services

Section 5.1 describes how the long list has been appraised against the CSFs to determine the short list.

3.4 Process to refine options and evaluate short list

Appraisal of the long list of options against the CSFs results in a short list of options. Combining the elements of the options framework, we will know for each option:

- The clinical services in scope
- How and where the services are provided
- The facility required to house the service
- How the facility could be delivered
- How the facility could be funded

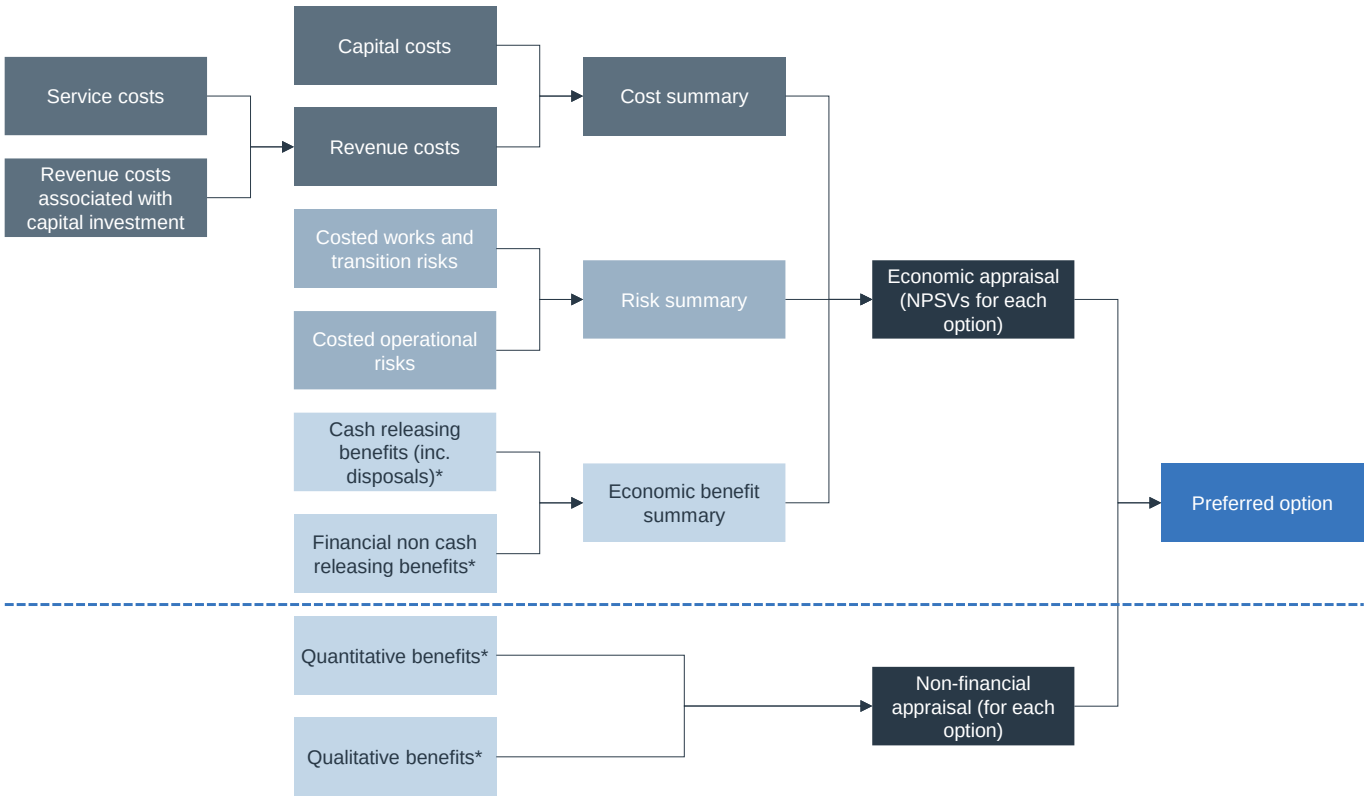
Table 10: Required short list of options (Green Book)

Option	Guidance
Business as usual (BAU)	• Baseline for measuring improvement and value for money • Provides a counterfactual against which alternative options are compared

Do minimum	• A realistic way forward that also acts as a further benchmark for value for money, in terms of cost justifying further intervention • Often referred to as the minimum investment/intervention to achieve the investment objectives
Other options	• Other possible options based on realistic 'more ambitious' and 'less ambitious' choices that were not discounted at the long-list stage

Evaluation of the short list comprises an economic appraisal (in the form of a net present social value calculation) and a non-financial appraisal. The economic appraisal brings together the cost, benefits and risks for each option in an objective way.

Figure 9: Short list appraisal logic model



*Note that all categories of benefit (cash-releasing, financial non cash-releasing, quantitative and qualitative) may accrue to patients, NHS providers, NHS commissioners or society in general for wider social benefits.

3.5 Pre-consultation engagement

Extensive engagement, including public consultation, has taken place on the main IHT proposal that key inpatient services provided by ESTH would be consolidated to the new Specialist Emergency Care Hospital at the Sutton site. Our pre-consultation engagement has been undertaken in this context.

See Section 6.1.

3.6 Impact assessment

An impact assessment (IA) was conducted as part of this PCBC to look at how the proposed relocation of the inpatient renal services at St Helier Hospital to St George's Hospital will impact current patients. The IA also included an equalities impact assessment to ensure that careful consideration has been given to equality and to ensure that people with protected characteristics, as defined under section 4 of the Equalities Act 2010, and other groups of people dependent on renal care are not disproportionally negatively affected or shown any bias by the proposed change.

The full IA is available as a stand-alone document.

The IA found that although the travel time to St George's Hospital for affected patients will increase, the impact on patients is small because visits to the new facilities will be infrequent and the majority of care will continue to take place at existing facilities; and patients are entitled to use patient transport services. Importantly, the consolidated service with new facilities will provide higher quality services with better outcomes for patients, outweighing the impact of a slightly longer journey.

Despite this, some groups with protected characteristics will be affected more than others, albeit the likelihood is small due to the reasons outlined above. Section 3.6.4 lists the actions recommended to mitigate the negative impacts. The issues raised by the IA will be addressed during the engagement process anticipated to follow the approval of this PCBC.

3.6.1 Putting the degree of change into context

Mott MacDonald analysed data provided by ESTH and SGUH covering patient contacts from April 2019 to February 2020, scaled to 12 months to provide an estimate of 2019/20 contacts excluding the impact of COVID-19. The analysis estimates a total of 273,614 contacts (journeys) made by 12,159 patients.

While 2,750 patients (23%) would be affected by the change, only 4.4% of total journeys would be affected.

Table 11 shows that 2,750 (23%) of the 12,159 patients, mostly served by ESTH, would be affected.

Table 11: All patients

Patients	SGUH	ESTH	Total
All	3,004	9,155	12,159
Affected	7	2,743	2,750
	0.1%	*22.6%*	*22.6%*

Table 12 shows that the 12,159 patients would have made 273,614 journeys in 2019/20, excluding the impact of COVID-19.

Table 12: All patient journeys

Journeys	SGUH	ESTH	Total	
OP	8,770	34,202	42,972	*15.7%*
IP	7,425	2,878	10,303	*3.8%*
Dialysis	66,776	153,563	220,339	*80.5%*
Total	82,971	190,643	273,614	*100.0%*
	30.3%	*69.7%*	*100.0%*	

Table 13 shows that 12,120 (4.4%) of the 273,614 journeys would be affected by the change.

Table 13: Patient journeys affected

Journeys	SGUH	ESTH	Total	% of all
OP	0	8,957	8,957	*3.3%*
IP	0	2,878	2,878	*1.1%*
Dialysis	285	0	285	*0.1%*
Total	285	11,835	12,120	*4.4%*
% of all	*0.1%*	*4.3%*	*4.4%*	

3.6.2 Travel and transport

Travel times

Under the proposal, kidney patients needing inpatient care will be treated at St George's instead of Sutton. This will mean longer journeys for some patients and families/carers.

We have considered the travel times by road from a wide range of postcodes during the midweek morning rush hour (08:00) and at lunchtime (13:00). Table 14 below shows travel times at 08:00 and 13:00 for postcodes from which travel times would increase the most in the 13 most affected local authorities (covering 80% of journeys). Where there were distinct additional concentrations of patients in these or other local authorities, we added additional postcodes.

The table shows for each local authority:

- The number of patients living in that LA whose journeys are affected
- The number of journeys originating in that LA that are affected
- The most affected partial postcode (or additional postcode)
- The index of multiple deprivation quintile for that postcode (1 = most deprived, 5 = least deprived)
- For travel at 08:00 and 13:00:

  The journey time to Sutton (TT0)
  The journey time to St George's Hospital (TT1)
  The change in journey time (ΔTT)

- Finally, the difference between the increases in journey time at 13:00 and 08:00

We can see from this table:

- The greatest increase in travel time is 28 minutes at 08:00 from Sutton
- The greatest difference between travel at 13:00 and 08:00 is 5 minutes

Table 14: Travel times from most affected postcodes in most affected local authorities (source: Mott MacDonald)

Local authority	Pts Σ	Jnys Σ	Postcode	IMD q	Travel at 08:00			Travel at 13:00		
					TT0	TT1	ΔTT	TT0	TT1	ΔTT
Croydon	541	2,646	CR8 3P	5	8	32	24	7	28	21
			CR0 0D	1	34	46	12	30	38	8
Sutton	508	2,119	SM5 4J	5	3	31	28	3	27	24
Merton	177	744	CR4 4N	3	19	20	1	17	18	1
Reigate and Banstead	169	654	KT18 5R	5	10	35	25	8	30	22
Epsom and Ewell	120	523	KT18 7J	4	18	41	23	16	36	20
Woking	94	472	KT14 7D	4	36	42	6	29	34	5
Mole Valley	98	465	RH6 0B	3	35	60	25	30	52	22
Crawley	101	434	RH10 1N	3	37	62	25	34	56	22
			RH11 7H	2	39	64	25	35	57	22
Runnymede	76	381	KT15 1E	5	42	50	8	37	42	5
Guildford	98	379	KT23 4H	5	28	50	22	26	43	17
Waverley	92	375	GU6 7Q	5	50	64	14	46	59	13
Tandridge	80	355	CR3 6D	4	27	51	24	24	45	21
Elmbridge	70	310	KT11 2A	4	32	38	6	28	32	4
Rushmoor	65	299	GU11 1H	2	58	64	6	49	54	5
			GU14 8A	4	58	66	8	50	55	5
Horsham	36	169	RH13 0R	3	54	76	22	49	66	17
Bracknell Forest	22	118	RG12 1F	2	61	69	8	51	55	4
East Hampshire	33	102	GU35 1H	4	67	73	6	58	63	5

Patients living in Sutton, Croydon (New Addington), Mole Valley and Crawley have the biggest difference in travel times between the options of St George's or Sutton. For example, our analysis shows patients living in the CR8 postcode in New Addington (Croydon) travelling at 08:00 would take 32 minutes to drive to St George's compared to eight minutes to Sutton. At 13:00, the times would be 28 minutes to St George's and seven minutes to Sutton.

Patients travelling in from Merton, East Hampshire, Elmbridge and Aldershot would have the smallest difference between the two options. For example, patients travelling from KT11 in Elmbridge in Surrey could expect a 38-minute drive to St George's and 32 minutes to Sutton at 08:00. At 13:00, the times would change to 32 minutes to St George's and 28 minutes to Sutton.

The analysis in the IA shows no link between longer journey times for private vehicle and areas of deprivation aside from in the London Borough of Croydon. This is because people in lower IMD quintiles are disproportionately over-represented in the patient population in Croydon. Croydon patients make up 69% of those affected living in the

most deprived 20% of areas but will have a relatively small impact on average journey times (six minutes) compared to those living in quintiles 4 and 5 in the borough.

Although these will be infrequent journeys, we know travel times, ease of parking and costs are a key concern for patients and their families and carers. We will continue to refine our travel analysis and will be transparent with patients and stakeholders throughout the engagement/consultation.

Patient transport services

Many patients travel on transport funded and provided by their local NHS. It is expected that most patients will use patient transport services and for this reason, it is a potentially mitigating factor on negative impacts identified to public transport.

Public transport

Although most patients travel by private car or patient transport services, some will travel by public transport. Public transport is also used by family and carers to visit patients having overnight stays.

Our analysis shows the overall direct impact is largely neutral. As shown in Table 15, the duration of journeys on public transport is mainly quicker for the towns selected for this study. A reason for this is that Tooting is better connected on the train network than Sutton, especially for people travelling from the furthest areas of South West London in this study. In terms of cost, the impact is of a small magnitude as the cost increase is relatively small, with Epsom having the largest cost increase of £3.60 for the return journey.

The negative impact of the change on towns such as Epsom, Leatherhead, Croydon and Sutton in South West London can be seen in Table 15. People from these towns would predominantly have to take an extra form of transport, with a longer duration and a marginally small cost increase. This is because the train route these towns are on is different to the route in and out of the Tooting area, which other towns in the geographical study area have easier access to.

Table 15: Public transport analysis

Local authority	Town	Additional trains or buses	Duration impact in minutes (return journey), includes walking)	Cost impact
Croydon	Croydon	0	20	£0.40
Sutton	Sutton	0	90	£0.00
Reigate and Banstead	Redhill	-1	14	-£4.40
Guildford	Guildford	0	-28	£0.20
Mole Valley	Leatherhead	1	40	£2.20
Crawley	Crawley	1	-22	£1.60
Merton	Mitcham	0	-48	£0.00
Hart	Fleet	0	-40	-£2.00
Epsom and Ewell	Epsom	1	48	£3.60

3.6.3 Equalities

The IA includes an equalities impact assessment. The IA provides assurance that careful consideration for equality factors has been undertaken and that no protected group is disproportionally impacted or subject to bias. A dataset was created by:

- Identifying local authorities (LAs) and postcodes for current patients
- Understanding the demographics and the index of multiple deprivation (IMD) quintile scores for these local authorities and postcodes
- Identifying LAs with a high proportion of the protected characteristics and high relative deprivation
- Examining whether travel from these LAs and postcodes would impact certain groups more than others

Impacts on race and ethnicity

The overall impact is neutral. People living in some LAs (such as Croydon and Sutton), with a high proportion of people that identify as Black, Asian, Mixed/multiple ethic and “other ethnicity” (within the definition in the ONS

website) would have further to travel, whereas journeys would be shorter from other LAs (Such as Merton) with a high proportion of people that also self-identify as Black, Asian, Mixed/multiple ethic and “other ethnicity”. For most of the people who are negatively impacted, visits will be infrequent, with local renal services remaining unaffected.

Impacts on religion and belief

There is a positive impact on the borough of Merton, which has the highest proportion of people that self-identify as Muslim, Sikh, Buddhist, Jewish, Hindu or other (within the definitions set out by the ONS), as from some parts of the borough, St George’s Hospital is closer and quicker to access than Sutton Hospital and can be accessed without incurring any additional cost.

Impacts on older people

There is a slight positive impact as the LAs that have the largest proportion of older people largely have a quicker journey via public transport to St George’s Hospital and only a marginally longer journey by private transport.

Impacts on people with mental illness and learning difficulties

There are significant impacts for this group as people with learning difficulties can be confused or anxious about changes in their healthcare. We will take steps to mitigate this impact. The IA demonstrates that rates of people with learning disabilities vary across the area of the geographical IA, as evidenced by the joint strategic needs assessments (JSNAs) for Croydon and Sutton.

Impacts on people with a physical disability

There is a slightly adverse impact on people with physical disabilities using public transport as a means of travel to St George’s Hospital due to having a 15–20-minute walk from the train station to the hospital. This is no greater than would have been expected at Sutton Hospital, but the travel analysis shows that, from some LAs, the journey to St George’s is more complex due to more changes of trains. This impact may primarily affect those visiting renal inpatients.

Impacts on people living in deprivation

The analysis of travel data shows that people in the lowest quintiles are not disproportionally impacted compared to those in higher quintiles. There is an impact in general of most people having a longer journey and that areas with a low IMD quintile score would be affected more as people from deprived areas may have a higher prevalence of CKD. However, travel for inpatient services would be infrequent, whereas local renal facilities, which are used more often, will not be affected at all.

Physical access

As the infrastructure and facilities for the new renal services at St George’s Hospital (or Sutton Hospital) have yet to be designed, it was not possible to assess the impacts on the physical access of the new facilities. However, during the IA, stakeholders were keen that when the requirements for design of the new renal facility at St George’s Hospital are identified, they consider the need for the following:

- Adequate parking, with priority parking for disabled people, and infrastructure that allows people of reduced mobility to navigate into and around the new facilities
- Provisions and considerations for people that have or are going through gender reassignment, such as possibly having access to single bays
- Available access to the adjacent services on offer at St George’s Hospital for the people most likely to require these services such as older, disabled, and pregnant people

3.6.4 Actions

The IA recommends that the following actions are undertaken to mitigate the potential negative impacts of the proposed change on people from protected groups. We will review these actions during the engagement phase to identify if further specific mitigations should be put in place for groups of patients particularly impacted by the proposed change.

- **Action 1** – Communicate travel information to all affected patients for visitors and themselves if they do not elect patient transport services
- **Action 2** – Work with carers and use communication techniques to manage the change to affected patients with a mental illness and/or learning difficulty
- **Action 3** – Identify design requirements for the new renal facility and ensure it takes into consideration the needs of pregnant, older, and disabled people and has adequate parking facilities
- **Action 4** – Review the parking in and around St George’s Hospital, including both on-and-off-site facilities

3.7 Decision-making process

As part of the IHT process, CCGs in South West London and Surrey Heartlands convened a Committees in Common (CiC) to consider and make decisions in relation to key parts of the process. South West London CCG and Surrey Heartlands CCG have made formal delegations to this CiC which permit decision-making on behalf of the entire board. It is proposed that a renal CiC will be convened using a similar terms of reference, with amendments to the membership to include Frimley CCG and NHS England Specialised Commissioning.

See Section 9.1.

4 Clinical model

The future clinical model will be required to deliver all core acute renal services to patients across South West London and Surrey, as currently delivered by SGUH and ESTH, supplemented by the services at Frimley Park Hospital and will address the case for change by:

- Reducing unwarranted variation in care and support provided to all patients
- Providing services from modern and fit for purpose facilities
- Increasing the efficiency and sustainability of renal services, achieving economies of scale where possible.

The clinical model was agreed following a period of engagement with clinical and non-clinical stakeholders from both trusts.

4.1 Scope and vision

The future clinical model will be required to deliver all core acute renal services to patients across South West London and Surrey, as currently delivered by SGUH and ESTH, supplemented by the services at Frimley Park Hospital. Current outpatient and community renal activity delivered away from St George's Hospital and St Helier Hospital will not be impacted. Specifically, the future clinical model will need to respond to forecast activity modelled to 2030 (aligned to the IHT DMBC recommendations approach for the core BYFH programme).

The service(s) will need to take into account existing plans around demand management, cost improvement and align with other ongoing service changes such as pre-emptive transplantation and an increased integration of renal services with primary and community care to support a more preventative approach, specifically in continuing and growing outreach and education programmes to DGHs and GPs.

Assumptions on growth, QIPP, CIP, inflation (income and cost) have been aligned with the IHT programme to maintain consistency between the options for ESTH's renal services, unless there is evidence to suggest an alternative assumption. An example of this is transplant surgery, which is forecast to grow at a higher rate over the next three years, in line with SGUH operational planning.

Additionally, the scheme will need to address the case for change by:

- Reducing unwarranted variation in care and support provided to all patients
- Providing services from modern and fit for purpose facilities
- Increasing the efficiency and sustainability of renal services, achieving economies of scale where possible.

Most renal services will be delivered closer to home, in the community, utilising the satellite dialysis sites, existing facilities at St Helier Hospital and current provider-to-provider relationships. This will ensure patients benefit from care close to home where possible and appropriate, and first class acute renal services when needed in state-of-the-art facilities.

As outlined above, the scope of this business case is to explore solutions for the provision of core renal services provided by ESTH and SGUH from St Helier Hospital and St George's Hospital. Core acute renal services are defined as:

- Inpatient nephrology
- Vascular access, transplant surgery and other procedures
- Acute dialysis
- Related outpatient services (currently provided at St Helier hospital)
- Home therapies

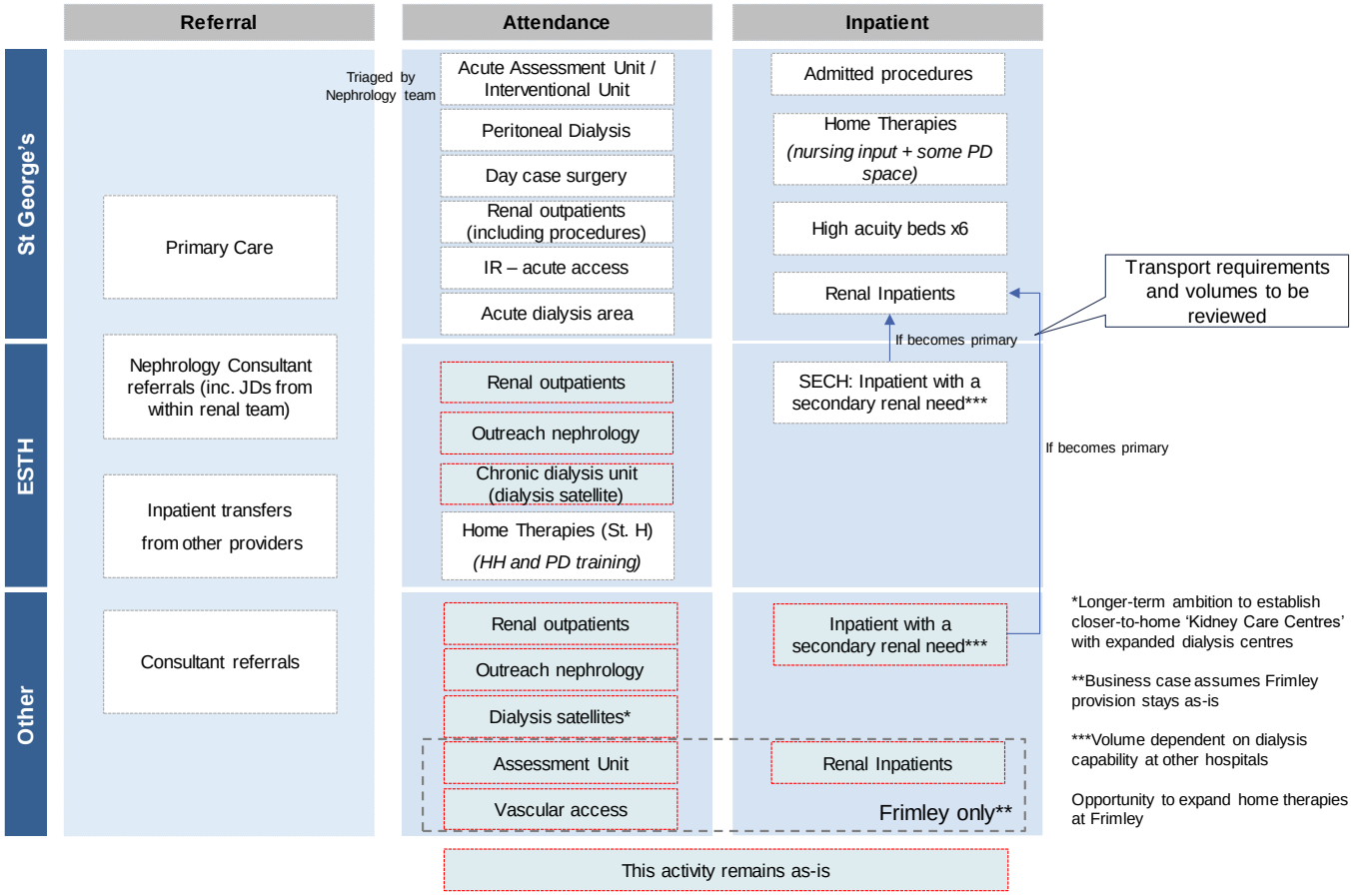
Activity that is provided away from the current St Helier Hospital and St George's Hospital, Tooting site, are not in scope of this specific investment.

- Outpatient clinics at DH and SWL and Surrey – no change
- Chronic satellite dialysis units across SWL and Surrey – no change
- Frimley inpatient unit – no change

4.2 Overview of proposed clinical model

Following a period of engagement with clinical and non-clinical stakeholders from both trusts, the following clinical model/pathway has been developed and is supported by the clinical and management teams from both organisations.

Figure 10: Clinical model pathway



Patients attending ESTH with acute kidney injury (AKI) would not be transferred as a matter of course. Patients would be transferred if:

- There is a strong suspicion that the patient has a condition that could not be treated locally, e.g. requiring plasma exchange or immunosuppression
- There is any indication for haemodialysis and it is only single organ failure
- The patient has acute transplant dysfunction, e.g. AKI in a transplant patient

4.3 Outreach

Outreach nephrology, outpatient services at district general hospitals and chronic dialysis would continue to be provided from existing locations across SWL and Surrey, including Frimley, maintaining ease of access for patients. Acute, surgical and invasive diagnostic services would be co-located in a new unit at St George's.

This proposal assumes that the provision for satellite dialysis continues and that sufficient provision would be in place within both Surrey and South West London to ensure this catchment is catered for including inpatient in-reach provision such as that operated by ESTH at Frimley.

St Helier has developed this decentralised model in partnership with Surrey hospitals over a number of years and it is important to emphasise that the joint specialist inpatient area will in no way reduce the amount or type of outreach care provided throughout Surrey and South London. The full range of general nephrology, advanced kidney care, surgical review and assessment, transplant work up, hypertension clinics, renal diabetic clinics, haemodialysis and peritoneal dialysis clinics will still be provided in their current sites.

ESTH and SGUH will continue to develop their existing outreach plans over the next four years as well as working with primary care and SLRCA to bring more treatment closer to home. Specifically:

- The units are already expanding how they train patients for home haemodialysis. Firstly, by increasing shared care to include training needling of fistulas and connecting lines within all our satellite units; and secondly, by home haemodialysis nurses carrying out training within the Farnborough Dialysis Unit for patients local to that area.
- The units have changed their follow up of transplanted patients from three times to twice a week. As per best practice and in line with learning from COVID, the units are now running around 50% of our transplant clinic via telephone and intend to continue to do this, again enabling patients to have more care near home
- Critical to the plans to expand outreach care is the renal unit at Frimley. This is staffed by 6 nephrologists with one always on site between 08:00 and 18:00 during the week. From this hub the majority of outpatient services

are already running locally. ESTH are in the process of expanding these further to include home haemodialysis training as described above and are training the consultants who work there to be able to insert local anaesthetic peritoneal dialysis catheters to enable acute PD starts. ESTH already provide intravenous iron at this site but are about to start providing infusions of immunosuppressive agents such as cyclophosphamide and rituximab to enable less travel for patients with acute vasculitic procedures.

4.4 Vascular access

The South West Thames Renal and Transplantation Unit (SWTRT) is a tertiary care centre of excellence based at Helier Hospital. The renal unit provides a patient centred outpatient and inpatient care for a large catchment area of patient population covering Surrey and adjacent surrounding areas. Each year the interventional nephrology group performs, on average, approximately 300 renal biopsies, 100 PD catheter insertions, 300 tunnelled dialysis catheter insertions and 300 non-tunnelled venous lines. Of these, approximately 120 tunnelled lines and about 30 PD catheter insertions/repositioning are done in the radiology department under fluoroscopy, and the rest in the renal procedure room. Approximately 40–50 procedures a year require direct help/intervention through interventional radiology, which is an integral part of our service delivery. SWTRT has been recognised and accredited as one of the only twelve interventional nephrology training facilities globally by the International Society of Nephrology. The service is consultant led and delivered, with a significant training element.

Vascular access (VA) is an important aspect of dialysis care and service delivery. The recent GIRFT report highlighted the following aspects:

1. Reference costs were below average for prevalent definitive access rates with respect to national targets for both St Helier Hospital and St George's Hospital
2. Performance in VA targets could be improved
3. Local audit data is below average rates for incident definitive access
4. Local data suggest delays at every stage in the pathway for fistula formation and salvage
5. A drawback of the St Helier renal unit is that it is not a vascular surgical hub

The relocation of SWTRT to St George's would enable the streamlining of VA services as the transplant and vascular surgeons are already based at St George's. The relocation of SWTRT to St George's would enable the streamlining of VA services as the transplant and vascular surgeons are already based at St George's. Surgeons' time and theatre time could be optimised and time lost to cancellations reduced. St George's would benefit from the skills and excellent experience of interventional nephrology services (e.g. complex central venous access and peritoneal dialysis access) and day case surgery from St Helier Hospital.

The GIRFT recommendation for the South West Renal Network is that we should improve the rates of definitive access in both incident and prevalent dialysis patients. This should be an area of focus for the network and should continue to remain a priority in the Renal services. Direct involvement of the nephrologist in delivering these procedures allows the service to be responsive to patient needs and avoids delays in diagnosis and initiation of therapy. Better consideration of the patient's clinical picture, awareness of co-morbidities and other access plans etc, improves prioritisation and patient outcomes.

5 Appraisal of options to deliver clinical model

The commissioners and trusts undertook a single options development and appraisal process from both clinical and capital perspectives in accordance with HM Treasury's Green Book principles for business cases.

The long list appraisal concluded that inpatient renal services should be delivered at a site, and that only options that met this requirement should be taken forward to the short list. The outcome was a short list comprising:

1. **Do nothing** – Services remain at ESHT with further investment in SGUH
2. **Do minimum** – Core acute renal services move to Sutton Hospital and an investment in SGUH for 5–10 years
3. **Co-location** – All core acute renal services at ESTH and SGUH within scope are co-located at SGUH site. Services out of scope are retained at respective trusts, with home therapies, outpatient and non-acute dialysis retained at ESTH
4. **Co-location + theatres** – Same as the co-location option but with two dedicated renal theatres built within new build

The short list was evaluated through qualitative and economic appraisal. From a clinical quality perspective, the appraisal showed that bringing two clinical teams together to cement best practice in a new, modern, and fit for purpose renal unit would help improve clinical quality and maximise the efficiency of renal services.

Co-location of acute renal services at SGUH was found to be the preferred option on the basis that:

- It offers the best value for money of the options
- It delivers the most significant qualitative benefits
- It is appraised as carrying less qualitative and quantitative risk compared to all the other options
- Due to the capital associated with acute renal services at the SECH, the additional capital requirement of the scheme is £52m
- It is more affordable than the business as usual and do minimum options
- The business as usual (BAU) option is not a tenable option

5.1 Long-listed options and appraisal against the CSFs

The long list of options was generated in accordance with the requirements of HM Treasury's Green Book and business case guidance[19]. Options were generated using the options framework, which generates a range of choices affecting the scope, solution, delivery, implementation and funding of the proposal. The analysis and appraisal are common across this PCBC and the trusts' capital OBC. Scope and site options are included in this PCBC. The trusts' capital OBC goes into further detail in relation to the type of redevelopment, sources of funding and contract type. This is not relevant to the PCBC but has been evaluated by the trusts using the framework set out below.

The table below shows the long list of options against the different dimensions for evaluation.

Table 16: Long list of options

Option dimension		Options					
1. **Scope** – coverage of services to be delivered and population covered		All core renal services delivered at SGUH / ESTH			All renal services delivered by SGUH / ESTH and the associated population		
2. **Service solution** – How the service will be delivered	a) Number of sites for core renal services	Single site		Two sites		Multiple sites	
	b) Core renal service site(s) location	SGUH – Car Park 2	SGUH - Knightsbridge	SGUH - other	Sutton (SECH)	St Helier	Off-site
3. **Service delivery** – who is best placed to do this	a) Design / build	All refurbishment	New build – conventional		New build – off site	Combination (new build + refurb	
	b) Contract type	Traditional			Design and build		
4. **Implementation** – when and in what form can it be implemented		Considered within management case					
5. **Funding** – what this will cost and how it shall be paid		Internal financing*	Charitable financing*	Government PDC	Mixed funding	Other (LA, PPP etc.)	

[19] The Green Book: appraisal and evaluation in central government, HM Treasury, 2020

5.1.1 Scope options

The options relating to scope have been considered within this evaluation, as described in Section 3.3. This includes the current provision of services delivered at SGUH and ESTH, as well as the wider provision of services in the wider population.

We have separated the scope into two options:

1. All of the core renal services delivered at SGUH and ESTH acute site – the core services are described in Section 1.4, but for simplicity they include services provided by ESTH and SGUH:

   Inpatient nephrology
   Vascular access, transplant surgery and other procedures
   Acute dialysis
   Acute outpatients
   Home therapies

2. All renal services, including chronic dialysis and outreach services

Table 17: Scope of services dimension

Critical Success Factors	**Option 1:** All core renal services delivered at SGUH/ESTH acute sites	**Option 2:** All renal services delivered by SGUH/ESTH and the associated population.
CSF1: Strategic Fit	Pass	Pass
CSF2: Care quality and patient experience	Pass	Pass
CSF3: Future flexibility	Pass	Pass
CSF4: Economy	Pass	Pass
CSF5: Commercial viability	Pass	Pass
CSF6: Affordability	Pass	Fail
CSF7: Deliverability	Pass	Fail
Outcome	**Pass** Meets all criteria	**Fail** The case for change focuses on the core acute renal services. This has therefore been the focus of the investment, however, the implications of these changes on broader renal activity (such as system dialysis capacity) has been considered and the total service is shown in the financial case. It is not feasible given time frames or appropriate given many services are tied into private provider contracts to consider estate solutions for all non-acute renal services delivered by SGUH and ESTH across SWL and Surrey.

Both options for scope pass the criteria, other than for deliverability, where the wider scope of all renal services delivered by SGUH/ESTH and the associated population fails against deliverability. Therefore, only options considering core acute renal services delivered at ESTH and SGUH acute sites are considered in scope of the short list options.

5.1.2 Service solution options

The long-listing process identified two different areas where there is optionality for the service solution. These are: the **number of sites**; and the **site location**.

The options for the number of sites for core renal services are:

1. Services delivered from a single site

2. Services delivered from two sites
3. Services delivered from more than two sites

Table 18: Number of sites for renal services

Critical Success Factors	**Option 1:** Services delivered from a single site	**Option 2:** Services delivered from two sites	**Option 3:** Services delivered from more than two sites
CSF1: Strategic Fit	Pass	Pass	Fail
CSF2: Care quality and patient experience	Pass	Pass	Pass
CSF3: Future flexibility	Pass	Pass	Pass
CSF4: Economy	Pass	Pass	Pass
CSF5: Commercial viability	Pass	Pass	Pass
CSF6: Affordability	Pass	Pass	Fail
CSF7: Deliverability	Pass	Pass	Fail
Outcome	**Pass** Meets all criteria	**Pass** Meets all criteria but does not deliver additional clinical benefits set out in investment objectives	**Fail** Multiple sites would not be deliverable (too much complexity), affordable (increase costs from multiple site) and does not align with trust and renal strategies

Delivering core renal services from one site, or from two sites passed the CSFs. However, delivery from further sites failed, on the basis that this would not meet the strategies for either organisation, or the regional or national strategies. In addition, this would not be affordable as a result of increased costs to run the sites, or deliverable from a complexity point of view.

The location of the site(s) for renal services have also been considered. These sites were identified following an estates review at St George's, and the options for ESTH in the context of the agreed IHT proposals.

The options for the core renal services site(s) location are:

1. SGUH – Car park 2
2. SGUH – Knightsbridge
3. SGUH – other
4. Sutton (the new Specialist Emergency Care Hospital)
5. St Helier Hospital
6. Other (e.g. in the community)

Table 19: Site location

Critical Success Factors	**Option 1:** SGUH – Car park 2	**Option 2:** Knightsbridge	**Option 3:** SGUH – other	**Option 4:** Sutton	**Option 5:** St Helier	**Option 6:** Other
CSF1: Strategic Fit	Pass	Fail	Fail	Fail	Fail	Fail
CSF2: Care quality and patient experience	Pass	Pass	Fail	Fail	Fail	Fail
CSF3: Future flexibility	Pass	Pass	Pass	Pass	Pass	Fail
CSF4: Economy	Pass	Pass	Pass	Pass	Pass	Pass
CSF5: Commercial viability	Pass	Pass	Pass	Pass	Pass	Pass
CSF6: Affordability	Pass	Pass	Pass	Pass	Pass	Pass

Critical Success Factors	Option 1: SGUH – Car park 2	Option 2: Knightsbridge	Option 3: SGUH – other	Option 4: Sutton	Option 5: St Helier	Option 6: Other
CSF7: Deliverability	Pass	Pass	Fail	Pass	Pass	Pass
Outcome	**Pass** Potential risks to deliverability	**Fail** Does not align with trust estates masterplan as it occupies large part of potential hospital development	**Fail** No other sites on SGUH estate align strategically or are considered deliverable	**Fail** Does not provide co-location with other acute services required	**Fail** Does not provide co-location with other acute services required	**Fail** Does not provide co-location with other acute services required

Following an appraisal of the options against the CSFs, the only option for the delivery of the renal services in scope is the current car park at SGUH. This option provides sufficient space, and the required adjacencies and co-dependencies in order to deliver the service.

5.1.3 Long list appraisal summary

The table below shows the summary of the long list appraisal, and the options within the dimensions that have been carried through to incorporate into the short list.

Table 20: Summary of the long list appraisal

Options	Summary of assessment
Scoping	
1. 'Business as usual'	**Carried forward as 'business as usual'**
2. All renal services delivered at SGUH/ESTH	**Carried forward as 'do minimum' Option 2**
3. All renal services delivered by SGUH/ESTH and the associated population	Discounted – not affordable or deliverable
Service solution – number of sites	
1. 'Business as usual'	**Carried forward as 'business as usual'**
2. 'Services delivered from a single site	**Carried forward as best balance of strategic fit with capital availability and value for money**
3. Services delivered from two sites	**Carried forward as 'do minimum' option**
4. Services delivered from more than two sites	Discounted – not affordable, deliverable and no strategic fit alignment
Service solution – site location	
1. SGUH – car park 2	**Carried forward to preferred option**
2. SGUH – Knightsbridge	Discounted – not strategically aligned to SGUH estates strategy
3. SGUH – other	Discounted – not deliverable
4. Sutton	Discounted – Does not provide co-location with other acute services required
5. St Helier	Discounted – Does not provide co-location with other acute services required
6. Other	Discounted – Does not provide co-location with other acute services required

5.2 Short-listed options

The 'preferred' and possible options have been carried forward into the short list for further appraisal and evaluation. All the options that have failed a CSF have been excluded at this stage.

On the basis of this analysis, the recommended short list for further appraisal is described in the table below:

Table 21: Short list of options as described in the BYFH OBC

Option	Description
1. Business as usual	For ESTH: Renal services stay at existing sites For SGUH: There is no capital investment in estate *Implication: Services are not fit for purpose, deliver a poor patient experience and do not support delivery of best practice case. There will be insufficient capacity to deliver future growth.*
2. Do minimum	For ESTH: Core acute renal services move to SECH, in line with the commissioner requirements within the IHT DMBC For SGUH: There is investment in the courtyard for 5–10 years, followed by re-provision of renal services in a new build/refurb for St George's activity only *Implications: There would be improvement in service provision and patient experience associated with improved facilities, however the services would not benefit from co-location*
3. Co-location	All core acute renal services at ESTH and SGUH within scope are co-located at SGUH site. Services out of scope are retained at respective trusts, with home therapies, outpatient and non-acute dialysis retained at ESTH. Dedicated renal theatre activity identified and provided within SGUH existing theatre capacity. *Implications: There would be improvement in service provision and patient experience associated with improved facilities, and additional benefits from co-location of services*
4. Co-location + theatres	All core acute renal services at ESTH and SGUH within scope are co-located at SGUH site. Services out of scope are retained at respective trusts, with home therapies, outpatient and non-acute dialysis retained at ESTH. Two dedicated renal theatres built within new build *Implications: There would be improvement in service provision and patient experience associated with improved facilities, and additional benefits from co-location of services*

5.3 Appraisal of the short list

The short list of options has been reviewed through a qualitative and non-qualitative appraisal.

- The qualitative appraisal considers a number of criteria, and an assessment is carried out for each of the options how they perform against these criteria. The qualitative criteria chosen were reviewed and agreed by the project team and align with those typically used for large hospital investment schemes and other HIP schemes. These are not quantified or scored, instead they are used to understand the balance of evidence for each of the options.
- The quantitative appraisal considers the costs and benefits of each of the options over time, and is measured through the Net Present Social Value (NPSV) for each of the options. This provides a further source of evidence to consider as part of the overall appraisal.

5.4 Qualitative benefits appraisal

5.4.1 Criteria used in the assessment

A number of qualitative criteria have been developed through engagement with stakeholders. The assessment criteria approach is based on considering how the option will impact/compare for each criterion. This provides relative assessment of the benefit of each option against the criterion, where it is not possible to quantify the benefit in monetary terms.

Table 22: Qualitative criteria and description

Criteria	Sub criteria	Description	Evidence
Quality and experience	Demand and capacity	Extent to which the option meets the demand requirements for SWL and Surrey renal services, providing the appropriate level of capacity to improve renal services	Demand analysis vs capacity provided by option from Schedule of Accommodation
	Patient experience	How well the options enable improved patient pathways and experiences, reducing unwarranted variation and linking with other services as required such as theatres, interventional radiology and other specialties	Clinical assessment of the impact of each option on patient experience
	Patient outcomes	Extent to which the option enables the improvement in clinical quality outcomes for patients and a reducing in unwarranted variation, aligned to national best practice and standards	Clinical assessment of the impact of each option on patient outcomes
	Workforce	Extent to which the option improves the staff experience, reduces silo working and creates opportunities for new roles, and increased researchers, and builds a critical mass of expertise to benefit patients and national renal services	Staff assessment of the impact of each option on trust staff
Strategic alignment	Reputation and quality	Extent to which the option enables ESTH and SGUH to be recognised as a leading renal services provider, providing learning for other renal services in England and internationally.	Assessment of ability of each option to enhance the reputation and quality of the service delivered
	Research and education	Extent to which the option enables the improvement in research and education services by providing a critical mass of expertise and patients and attracting increased research and education funding and support.	R&D leads assessment of impact of each option on ability to attract and deliver R&D
Deliverability	Timeliness	The ease with which the option can be delivered, considering the suitability of land, complexity of the option to deliver and duration	Key milestone dates for each option, including expected completion date
	Accessibility of funding	The ability of ESTH and SGUH to access the capital required to deliver the option	Finance/strategic assessment of ability to access required funding for each option
	Stakeholder support	The level of support ESTH and SGUH has from external stakeholders such as, local and national commissioners, the Kidney Alliance, local authorities, and renal patient groups	Programme assessment of written and verbal support from key stakeholders for each option

In order to assess the options against these criteria, the following methodology has been used.

Table 23: Methodology for understanding the impact of each of the options

Impact	Description
- – -	The option has a **significant negative** impact on the current situation
- -	The option has a **negative** impact on the current situation
-	The option has a **small negative** impact on the current situation
n/a	The criterion is **not relevant** to this option

Impact	Description
0	The option has an **overall neutral** impact on this criterion
+	The option has a **small positive** impact on the current situation
+ +	The option has a **positive** impact on the current situation
+ + +	The option has a **significant positive** impact on the current situation

The fourth option, including two additional theatres, is not anticipated to have a significant difference in qualitative benefits than the core co-location option. This is because, the requirement for the additional theatres is demand and capacity driven, and associated with the wider management of theatres at SGUH. In the co-location option, SGUH will provide dedicated renal theatre sessions to meet the forecast demand outlined in this proposal. While there may be some benefits from having theatres within the single unit, there are also expected to be some dis-benefits in staffing and managing those theatres.

5.4.2 Quality and experience

The domain of quality and experience has been used to assess the impact of the options.

Table 24: Quality and experience assessment

Criterion	Option 1: BAU	Option 2: Do minimum	Option 3: Co-location	Option 4: Co-location + theatres
Demand and capacity	- -	+	+ +	+ +
Patient experience	- – -	-	+ +	+ +
Patient outcomes	- -	-	+ +	+ +
Workforce	- -	- -	0	+

Demand and capacity

- The business as usual option would not account for the growth in demand and was therefore assessed to have a negative impact compared to the current situation.
- The do minimum allows for growth in demand and would have a small positive impact.
- The co-location (and co-location + theatres) option meets the demand for both ESTH and SGUH services, and better matches this demand with the appropriate capacity than the do minimum option.

Patient experience

- The business as usual option would mean a further deterioration in estate, with services at St George's continuing to be provided from trailers.
- The do minimum improves the estate; however, services would continue to be fragmented across sites, resulting in a negative experience for patients.
- The co-location option (and co-location + theatres) improves the estate and provides a better experience for patients through a joined-up service.

Patient outcomes

- The business as usual option does not deliver best practice patient outcomes, and there is a risk that without investment, the service will not be able to meet required clinical standards.
- The do minimum would mean that vascular access at St Helier would not meet deliver best practice patient outcomes. This has been highlighted by GIRFT.
- The co-location (and co-location + theatres) option would mean equal access and equal outcomes for SGUH and ESTH patients and deliver a best practice service comparable with other leading renal centres.

Workforce

- The business as usual option and do minimum option would result in continued challenge for junior doctor staffing at SGUH, in particular attracting deanery funded positions and maintaining a rota that is able to support junior doctors training requirements.

- For the co-location option there is a risk of losing nursing workforce from ESTH as the service would no longer be local to where some ESTH nursing staff live. There are no current significant nursing recruitment challenges at SGUH, however some upskilling would be required for dialysis. Combining the services together would attract staff and researchers and provide further training opportunities, in addition to an increase London weighting due to being located at SGUH. Considering these factors together means an overall neutral impact.
- The co-location + theatres option will have consistent impacts with the co-location option; however, it will support a dedicated renal theatre team. This will ensure all activity is overseen by a consistent team for renal surgical activity and help support improvements in theatre and reductions in complications.

5.4.3 Strategic alignment

The options were subsequently assessed against strategic alignment criteria.

Table 25: Strategic alignment

Criterion	Option 1: BAU	Option 2: Do minimum	Option 3: Co-location	Option 4: Co-location + theatres
Reputation and quality	- -	0	+ + +	+ + +
Research and education	- -	-	+ + +	+ + +

Reputation and quality

- The business as usual option would have a negative impact as the quality of the estate and the inability of the service to deliver best practice services would be detrimental to the reputation and quality of the trusts' renal services and patient experience.
- The do minimum would have an overall neutral impact, with improvements in the estate but no further improvements in quality or delivery of best practice services.
- The co-location option would allow the joint service to become a leading service, supporting the wider tertiary centre development of SGUH and providing further opportunities for research, training and further education and improve patient experience.

Research and education

- The business as usual option and do minimum have a negative impact as they would not attract further research or education opportunities.
- The co-location option brings together a critical mass of nurse and doctor training and provides wide research and education opportunities. The combined unit will be of sufficient scale, and with sufficient opportunities in research/education, to justify appointing a chair of nephrology with the University to drive forward our ambitions in research/education.

5.4.4 Deliverability

The following criteria assessed fall under the deliverability domain.

Table 26: Deliverability criteria

Criterion	Option 1: BAU	Option 2: Do minimum	Option 3: Co-location	Option 4: Co-location + theatres
Timeliness	+ +	- -	n/a	n/a
Accessibility of funding	n/a	-	+	+
Stakeholder support	- -	-	n/a	n/a

Timeliness

- The business as usual option would be delivered more quickly than the other options.
- The do minimum would require an intermediate term fix at SGUH, followed by a further iteration of work required to understand how the service could be delivered as part of a wider strategic change. This is likely to be the option that takes the longest to deliver, with further risks around how this would be phased.
- The co-location option would take longer to deliver than business as usual, however would be delivered more quickly than the do minimum.

Accessibility of funding

- The business as usual option does not require further funding.
- The do minimum funding has been identified for the ESTH proportion of activity as part of IHT, however there is no funding solution for SGUH.
- For the co-location option, there is an identified funding route through the IHT changes, with support from the National Joint Investment Committee to progress this business case, however, the specific capital funding has not been formally agreed.

Stakeholder support

- The potential for co-locating services has been discussed previously with stakeholders over the past several years, and the project has based its assessment of likely stakeholder support on that past engagement.
- Further engagement has been taken in preparation for the development of this PCBC as highlighted above

Overall

- The business as usual option would have a negative impact for stakeholders as the service at SGUH would continue to be delivered from poor facilities, including temporary dialysis trailers.
- The do minimum would likely have less stakeholder support than the co-location option, due to the fragmentation of services.
- The co-location option delivers a wide range of benefits and is consistent with preferences expressed in some previous stakeholder engagement, and so is assessed by the project at this stage as likely to have stakeholder support. However, the proposal has not been tested with all stakeholders at this stage, and therefore this is a holding position.
- As outlined above, the co-location option + theatres is anticipated to have qualitative benefits consistent of those with the co-location option.

5.5 Economic appraisal

This section provides a detailed overview of the main costs and benefits associated with each of the shortlisted options. It also indicates how they were identified and the main sources and assumptions.

5.5.1 Estimating benefits

Clinical quality benefits (non-cash releasing benefits) are described in Section 5.6. The financial and economic benefits (cash releasing benefits) associated with each option are explained in more detail in the BYFH OBC. The economic benefits below are considered monetisable but not cash-releasing.

Table 27: Benefits

Benefit	Applies to	Value (£k) 2019/20	Value (£) 2029/30	Benefits (% 2019/20 op. costs)
IHT benefits	Do min and co-location options	600	703	1.1%
Consultant efficiency – saving of 22 PAs consultant time	Co-location options only	264	310	0.5%
Middle grades – WTE reduction (from 14.75 to 12 WTE)	Co-location options only	178	209	0.3%
SHOs – WTE reduction (15.91 to 12 WTE)	Co-location options only	201	236	0.4%
Nursing workforce WTE efficiency	Co-location options only	114	133	0.2%
Other workforce WTE efficiency	Co-location options only	175	205	0.3%
Reduced cost of dialysis trailers lease	Do min and co-location options	225	260	0.4%
Additional income (clinical trials)	Co-location options only	102	119	0.2%
Vascular access	Co-location options only	621	788	1.2%
Dialysis efficiencies	Co-location options only	424	481	0.7%

Total financial benefits		**2,903**	**3,444**	**5.3%**
Length of stay reduction (1% per year for 10 years)	Co-location options only	530	632	1.0%
Inpatient to day case conversion (2 beds)	Co-location options only	222	265	0.4%
Total economic benefits		**752**	**897**	**1.4%**

Note, the table above includes benefits stated in constant (uninflated prices) for the purpose of the NPSV analysis and in 2029/30 prices for the purpose of the affordability analysis.

A summary of the total benefits by option is show below. Given the BAU option involves no service change, no benefits are allocated.

Table 28: Financial benefits of options

Category	BAU	Do minimum	Co-location	Co-location + theatres
Financial benefits	–	£0.9m	£3.4m	£3.4m
Additional economic benefits	–	–	£0.9m	£0.9m

5.5.2 Estimating costs

In order to deliver the benefits expected, capital investment is required across all options.

Capital requirements under each option have been calculated by expert estates advisors based on best practice and relevant standards and guidance, including DHSC Health Premises Cost Guides (HPCG). The estimates include the costs required for new buildings and any refurbishment needed, across all relevant sites.

This included:

- Estimating the space required for the activity required on each site under each option and, of this, the refurbishment or new build space required; and
- Estimating the capital requirement for this new build and refurbished space for each site under each option, including completion of OB1 cost forms.

Table 29: Capital requirement of options

Category	BAU	Do minimum	Co-location	Co-location + theatres
Total capital investment (£m)	£8.8m	£87.4m	£82m	£91.7m

The basis for each cost estimate is provided below:

- The BAU option: Based on backlog maintenance requirements of each service's facilities
- Do minimum: Based on a Schedule of Accommodation for improvement of SGUH renal services plus the proportion of the SECH capital cost associated with renal services
- Co-location: Based on new build and refurbishment requirements from Schedule of Accommodation (V8.2)
- Co-location + theatres

The bed requirement in the do minimum and co-located options includes growth to 2029/30 (and in the co-located option improved benefits in LOS). For the designed options (Do minimum, co-location and co-location + theatres, the capital estimates include:

- Build/refurbishment costs
- Project/design team fees
- Appropriate allowances (e.g. wayfinding and signage, move costs)
- Equipment costs
- Risk allowance
- Optimism bias
- VAT

A further breakdown of the capital cost can be found in the BYFH OBC.

Additionally, the case is subject to the ongoing running costs of the services. These are based on trust finance data for 2019/20, normalised for the impact of COVID-19 in March 2020. The costs are subject to agreed assumptions around inflation, activity growth and efficiencies (QIPP, CIP).

5.5.3 Adjustments for optimism bias

There are a number of different types of cost contained within this economic appraisal that have been adjusted for optimism bias (OB). The approach taken follows HMT Green Book best practice and full details of calculations can be found in the BYFH OBC. These are summarised in the table below:

Table 30: Summary of optimism bias adjustment

Cost type	OB category used	BAU	Do minimum	Co-location	Co-location + theatres
All	Total	n/a	15.37%	11.99%	15.37%

Summary justification: OB reviewed through an OB workshop in September and ongoing reviews as design has progressed. The co-location option OB has been revised down as the design has progressed.

5.5.4 Net present social value

The net present social value (NPSV) of the options considered the total benefits for each option. NPSV is used as best practice within The Green Book as an objective measure for comparing total benefits for different options over an extended period of time. Therefore, using this as the core metric, the NPSV of the options suggested a ranking of the options.

NPSV considers the total benefits for each option, including:

- Operating income (e.g. ESTH income received)
- Financial benefits from the clinical model
- Other income (e.g. education and research funding)

The NPSV is then less the investments required and the costs at current values, including:

- Operating and non-operating expenditure (e.g. ESTH costs of providing services)
- Capital investment required
- Transition costs (e.g. cost of temporary buildings and double-running of some services in the intervening period)

A discount rate of 3.5% for the first 30 years and 3% onwards has been applied to weight the relative value of future cash flows in line with best practice guidance in The Green Book. Sunk costs, transfer payments, VAT, capital charges, depreciation and other non-resource costs have been excluded from the NPSV analysis.

Table 31: NPVs for each of the options

Type	Description	BAU	Do minimum	Co-location	Co-location+ theatres
Estates and capital	Bed number	68	71	68*	68
	Gross capital investment (£m) in 2029/30	8.7	87.4	82.0	91.7
Economic	NPSV – financial benefits only	185.9	148.9	196.2	189.4
	Additional economic benefits (productivity)	0.0	0.0	13.6	13.6
	NPSV including economic benefits	**185.9**	**148.9**	**209.8**	**202.9**

*The options appraisal has been completed on the requirement for 68 beds based on activity modelling and clinical model changes. However, within the actual design of the building it is more economical to provide 70 beds.

The economic appraisal indicates that the co-location option optimises the net present social value (NPSV) of all the options, including when considering only the financial benefits. The improved NPSV for the co-location option is driven by the significant incremental benefits identified of bringing the two services together, as outlined above.

5.5.5 Sensitivity analysis

The robustness of the findings from the quantitative economic appraisal has been tested through sensitivity analysis, in which the value of key cost/benefit drivers have been varied within a realistic range to determine the impact on the NPV for each option.

The main cost and benefit drivers for the NPSV conclusions are:

- **Benefits:** A significant quantity of benefits has been highlighted for the co-location and co-location + theatres options. As a result, these options are sensitive to increases or decreases in benefits. However, a sensitivity of a 10% reduction in benefits still retains the NPSV ranking, however, the co-location option results in a lower surplus to the BAU.
- **Capital costs:** The do minimum, co-location and co-location + theatres options all contain significant capital costs, and as a result are sensitive to increases. A sensitivity of a 10% increase in capital cost benefits still retains the NPSV ranking, however, the co-location option results in a lower surplus to the BAU.
- **Growth:** In all the options, the activity levels, associated income and costs are forecast to grow over the modelled period. A 1% reduction in growth still retains the NPSV ranking, however, the co-location option results in a marginally lower surplus to the BAU. All options see a reduction in the surplus achieved.
- **Cost Improvement Plans**: In all options, there is a significant quantity of CIPs within the plans. These affect all options equally, so a 0.5% reduction in annual CIP achievement affects all options equally and does not impact the ranking.
- **Useful life of asset:** This was assessed as a sensitivity to test whether extending the life of the assets had a significant impact of the I&E. However, this was not the case.

The outputs from the specific sensitivity cases tested for each of these drivers are provided in the following sections.

Table 32: I&E sensitivity analysis

Sensitivity	BAU	Do minimum	Co-location	Co-location + theatres
Baseline I&E	7,910	5,367	8,115	7,648
Benefits (-10%)	7,910	5,270	7,782	7,315
Capital Costs (+10%)	7,860	4,928	7,697	7,183
Growth (baseline – 1%)	5,613	3,000	5,575	5,108
CIPs (-0.5%)	3,972	1,488	4,335	3,868
ULA (60yr new buildings)	7,910	5,496	8,124	7,698

Table 33: NPSV sensitivity analysis

Sensitivity	BAU	Do minimum	Co-location	Co-location + theatres
Baseline I&E	185,897	148,898	209,813	202,953
Benefits (-10%)	185,897	147,405	203,252	196,392
Capital Costs (+10%)	185,224	142,278	203,889	196,343
Growth (baseline – 1%)	143,034	105,008	162,474	155,615
CIPs (-0.5%)	116,801	80,693	143,874	137,015
ULA (60yr new buildings)	185,897	148,898	209,813	202,953

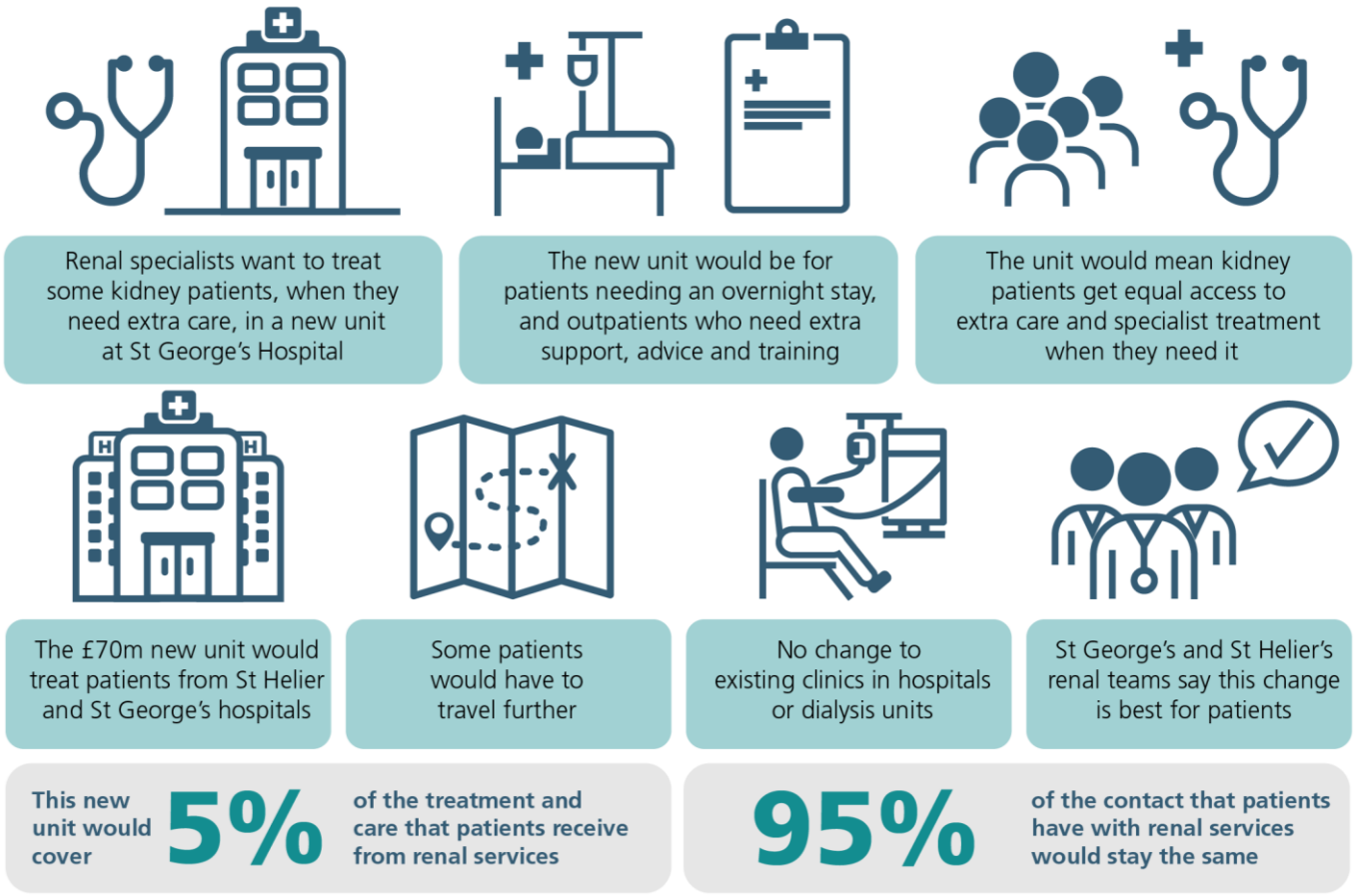
5.5.6 Economic appraisal conclusion

The economic appraisal finds that the co-location of acute renal services delivers the greatest return on investment of each of the options, consistent with the findings of the qualitative benefits appraisal. The I&E position is close to that of the BAU position, resulting in a change in ranking after some sensitivities, however, the NPSV is retained after considering a range of sensitivities on cost and benefit drivers.

5.6 Clinical benefits of the preferred option

This proposal is aimed solely at improving the quality of care and clinical outcomes. It represents a solution for renal care than that previously agreed in the Improving Healthcare Together DMBC.

Figure 11: Summary of impact



Key benefits are outlined below, aligned to the investment objectives identified.

Table 34: Main benefits areas

Strategic objective	Main benefits areas
To improve patient care, experience and safety	**Removing unwarranted variation in clinical quality, ensuring all renal patients in SWL, Surrey and neighbouring areas receive the very best care at all times** **Vascular access:** The new unit will provide the necessary theatre access to provide the flexibility to be responsive to both the need for urgent access creation and to respond quickly to any problems with vascular access preventing access loss. This will enable the unit to: • Increase the numbers of patients dialysing through fistulas and reduce line dialysis which will in turn decrease hospital stays and improve clinical outcomes • Provide a more consistent pathway for surgical patients improving the patient experience • Consolidate surgery on a single site to maintain a high number of patients with dialysis through vascular access, optimise day surgery rates and reduce bed usage and overnight stays where appropriate • Improve the quality of procedures and outcomes for patients ensuring patients receive the right treatment at the right time. • Upskill nurses to enable them to insert lines • Ultimately improve the quality of life of renal patients, enabling them to survive longer with less hospital admissions. **Home therapies:** A dedicated home therapies unit, co-located with an in-centre dialysis unit will help address the disparity in uptake of home therapies between the trusts (as highlighted by GIRFT) and enable training for all home therapies to be

Strategic objective	Main benefits areas
	delivered from the unit, by staff who will care for them, rather than private providers. This will enable the following benefits: • The larger patient base will allow zoning of areas and enable fully supported peritoneal dialysis at home for patients unable to carry out their own dialysis. • Colocation with an in-centre dialysis unit will support training in shared care and self-care with bookable dialysis slots for patients. • Reduces the risk of infections from the acute site to outpatients. • Increased efficiency of home therapies services • Improved quality of home therapies service by learning from each other, and therefore improving patient outcomes • Increase the resilience of home therapies, ensuring the right expertise is available more of the time, and improving access, which was raised as an issue in GIRFT. The specialists involved have already supported two other centres in learning these techniques and all patients across the patch would now benefit from this expertise. **Transplantation:** The new unit will be able to offer transplant with dedicated access to renal theatre lists. This will enable the service to: • Ensure parity of access to transplant for all patients, as identified in GIRFT • Increase the rates of pre-emptive transplantation with improved access to theatres and surgeons as they won't be splitting time across multiple sites as much • Enable the service to explore opportunities to deliver training, research and innovation in transplant nephrology using the significant number of physicians and surgeons located at the unit – a potential income generation opportunity subject to agreed commissioning arrangements **Interventional radiology:** A co-located unit could consolidate IR activity at SGUH, where there is 24/7 provision and access, removing the need for patients to be transferred at night between sites, increasing the clinical risk to that patient. This will provide opportunities to: • Train renal specialist registrars on IR • Create a centre of excellence in renal IR and support the developments of innovations within interventional nephrology, such as novel access procedures. Example: For patients experiencing time critical events whilst an inpatient, such as a bleeding fistula, co-location in an acute site with 24/7 access to interventional radiology and renal surgeons will reduce the inequity experienced by patients currently seen at ESTH; as they will no longer have to wait to be transferred for treatment which can be impacted on by lack of beds at SGUH from outliers. **Peritoneal dialysis:** The unit will provide the potential to grow and develop the nurse led PD insertions, with the ability for these to be undertaken on site, and transfer over to nurse practitioners rather than medical staff. • Create a critical mass of patients, to enable an economically viable assisted PD service across both catchments, improving the parity of services delivered • Access to a larger PD service will create more options for patients, and avoid the need to opt for haemodialysis, as flagged in GIRFT • Development of the SGUH LA PD catheter insertions programme, enabling peritoneal dialysis to be used in the acute situation, therefore promoting PD as a long-term modality • Development of PD insertion programme also reduces pressure on the surgical service for vascular access and reduces waits for those accessing it **Ambulatory care:** A dedicated ambulatory care service will enable patients to be discharged sooner, with the knowledge that there is a suitable ambulatory care facility for them to return to when needed, enable some overnight stays to be converted to day case • Access to day case beds reduces the demand for inpatient beds for surgical patients • Allows patients to be assessed and cared for in ambulatory setting reducing the need for an overnight stay where possible

Strategic objective	Main benefits areas
	• Improves the consistency of care between ESTH and SGUH, where ESTH does already have some renal ambulatory care facilities • Fewer renal patients will need to go through ED, as they can be managed within ambulatory care. • Acute medical admissions: Shorter lengths of stay through co-location of services and access to specialist services on site, as flagged in GIRFT. **Surgery patients:** The joint unit will provide a dedicated renal surgery service. This will ensure that: • The greater volume of activity will justify daily lists leading to fewer cancellations and increased flexibility in managing theatre capacity. • Daily lists will allow better access to surgery and same day procedures for urgent patients, as flagged in GIRFT **Infection control:** A dedicated unit, with modern and fit for purpose facilities will reduce Healthcare Associated Infections (HCAI) through increased provision of single rooms, segregation of spaces and more appropriate flow through the hospital **Co-location with other specialties:** Current ESTH patients would benefit from faster access to consultant medical opinion and intervention from other specialties such as cardiology. This, in turn, will contribute to a reduction in length of stay for those patients. **Enhancing outreach and prevention of AKI:** Prevention is a key national and regional priority for renal services. This scheme will enable renal consultants to be more efficient and avoid duplication in delivering a single regional outreach service. This will be assessed regularly together and provide ways and means to improve prevention of acute kidney injury through continued outreach and education. By merging units, we will eliminate boundary issues across the patch enabling patients to access their nearest clinic or satellite unit more easily. Patients will have one set of renal unit notes for all admissions rather than two sets that don't easily marry up making outreach care simpler. The reduction in boundaries will also streamline the running of some services and enable the introduction and expansion of others. For example: • The running of the Kingston Satellite unit which is currently shared between St George's and St Helier with blood tests sent to two different hospitals and protocols in place from two different hospitals, complicating care • We will develop pathways that will be able to provide peritoneal dialysis (PD) across the area efficiently • More time for vascular access nurses to support access clinics and reviews in advanced kidney care clinics and satellite units throughout Surrey **Broader health outcomes:** The proposal will reduce inequalities between patients treated at the two current units, improve the quality of care and clinical outcomes for all patients. The consolidation of the unit will also increase the capacity of specialist clinicians to support cross-system initiatives, for example improved prevention and identification of CKD patients, and virtual clinic approaches (as per SLRCA strategy and subject to appropriate investment). **Building on existing relationships with the wider health and social care system:** Both units already have embedded social workers. This service would continue with, via greater scale, more opportunity to build on existing strong relationships with primary care, community care and social care teams across SWL, Surrey and surrounding areas. This is an area of significant experience for SGUH as a tertiary centre, accustomed to dealing with flows into and out of the same catchment area for a range of other services. This aligns with SGUH's aspiration to develop a stronger relationship with Surrey-based health and social care partners and plans across the system to join up commissioning and strategic oversight of specialist services (such as renal care) with pathways and provision overseen by CCGs/ICSs.
	Improving the patient experience, ensuring they are treated in the most appropriate care setting, and closer to home where possible • Faster access to specialist referrals through co-location of Renal services

Strategic objective	Main benefits areas
	• Increased number of single rooms will improve patient privacy and experience hugely • Increased access to dialysis and increasing home dialysis provision to give patients more autonomy over their healthcare • Access to dedicated higher acuity beds for renal patients would ensure patients can be treated within a renal specialist setting and have access to specialist input and support when needed, rather than being moved around the hospital • Reduced patient complaints and an increase in positive experiences of services • Shorter waits for access to cardiovascular services and others such as infectious diseases/neurology • Patient Reported Experience Measures (PREMs) identified communication between specialists as an issue and co-location would improve this • Improved patient experience with a single renal unit providing facilities in a single place, avoiding the need to be moved around the hospital regularly and to different teams
To deliver a more financially sustainable service, by achieving economies of scale both in the utilisation of the estate and the provision of services	If combined, the units would become the third largest renal service in England, realising significant economies of scale and efficiencies • In combining the services, the investment will realise increased efficiency of medical rotas, resulting in the ability to deliver financial savings within the medical and nursing workforce. • In addition to the financial savings, the co-located unit will also improve out of hours cover and 7-day working, enabling two consultants in hospital over the weekend days to carry out a ward round enabling continuity of care for our inpatients, without disrupting the ongoing outpatient care. • Duplication of management and operational resources resulting in further financial savings • Significant savings associated with avoiding maintenance and property costs on the current estate, including the cost of temporary dialysis trailers.
To increase opportunities for research and education/training with the new centre benefiting from a concentration of patients and diversification of case mix	SGUH benefits from co-location with St George's University of London (SGUL), while ESTH hosts the Renal Institute. Bringing together these strengths will enable the new centre to increase opportunities for cutting edge research, with increased number of patients being able to take part in clinical trials. The combined unit will be of sufficient scale, and with sufficient opportunities in research/education, to justify appointing a chair of nephrology with the University to drive forward our ambitions in research/education. This in turn will support the trusts to attract additional funding for research and physicians with an interest and passion for research. Specifically, the new unit will: • Create a larger cohort of patients for clinical trials benefiting patients participating in trials and enhancing the ability of the service to bring innovation. • Attract research grants to St George's as a tertiary centre co-located with a university • Attract clinicians with an interest in research • Explore research synergies: opportunities to combine basic science with translational research plus potential areas of synergy including research in cardiovascular, transplant, diabetes. Clinicians across each service have complementary areas of interest, giving patients access to a wider range of research opportunities. Clinical outcomes are improved for patients involved in clinical trials • Create more opportunities to develop research into preventative nephrology through co-location with hypertension unit and diabetes and increased links into ICSs and primary/community care • Provide potential to free up medical time from brining two services together • Attract more doctors on research grants who can support the out of hours rotas to enhance opportunities for junior doctor training. • Bring opportunities to attract investigator led clinical trials.
To create a sustainable workforce by removing	The joint unit will provide significant opportunities for the development of staff working within renal services. These include:

Strategic objective	Main benefits areas
silo/isolated working resulting from services being spread across more than one location (SG); and increasing opportunities for nurse training with the new centre benefiting from close proximity to St George's, University of London, ultimately improving staff wellbeing, recruitment and retention	• Exploring new models of delivering care including utilising new roles such as nursing associates, advanced clinical practitioners, physicians associates etc. • Enhance resilience of the staffing model with greater economies of scale improving the service's ability to respond to unforeseen changes in demand • Opportunities to shared ideas and learn from staff and approaches leading to a more consistent and high-quality service • Opportunities for greater education and teaching • Opportunities for ESTH nurses to access the renal course more quickly – increasing the expertise of the nursing workforce • Opportunities to improve recruitment to junior doctor positions which have historically been harder to fill • Create a larger and more resilient technician workforce across both sites, opportunity to add training posts • Create an integrated and more resilient social worker/counsellor workforce across both sites Example: vascular access nurses at St Helier Hospital have more experience dealing with challenging patients. This experience will be shared with nurses at SGUH, upskilling the overall service.

5.6.1 Examples

More detailed modelling on patient pathways will take place over the coming months. Set out below are some examples of expected improvements in patient pathways to show how the new unit would benefit patient care and experience through greater concentration of expertise on one site.

Table 35: Example – Vascular access

Current situation	New pathway
The proposal will enable both Trusts to improve vascular access services for their patients. GIRFT reports highlighted this as an area for improvement for both services, and pointed to particular parts of the pathway for future focus at both Trusts. At St George's, GIRFT highlighted lack of access to day care beds as a key barrier to improvement. The proposed joint unit will help address this by providing a dedicated surgical ward, plus a day unit which in turn will reduce pressure on surgical beds, improving bed capacity for day case and inpatient vascular access surgery. At St Helier, GIRFT highlighted delays for patients in accessing surgical input, particularly for more complex surgery such as fistula salvage – a challenge exacerbated by the fact that St Helier is not currently a vascular surgical hub and instead relies on surgical outreach from St George's and the transfer of more complex cases to St George's.	The proposed joint unit will have surgeons, together with interventional radiology support, on site 24/7, and will eliminate the need for patients to transfer from one site to another for surgery with the delays that entails. In addition to helping address these recommendations from GIRFT, combining the two units will deliver a scale of surgical activity that allows for theatre lists every day of the week, again reducing delays. It will allow for more efficient use of the day case unit, building on the two trusts' experience of combining their day case activity during COVID, and will make more efficient use of surgical time, with reduced traveling between sites.

Table 36: Example – Reducing multi-site transfers

Current situation	New pathway
Renal inpatients need to remain in a renal unit so they can receive regular dialysis and specialist renal input. Currently renal inpatients at St Helier may also require additional clinical input from other teams that is either not available at all on the site or not available at all times. One example is acute cardiac care for instance stenting of coronary arteries. If this is required the patient needs to wait for a bed before transferring to St George's where this procedure can be carried out. There is often a wait of several days prior to transfer. The patient will then need to be	If renal inpatients were based at St George's then acute cardiac expertise and procedures would be available on site. The patient would receive their cardiac treatment more quickly, no transfer would be needed and length of stay would be reduced.

returned to St Helier for the rest of their treatment. This impacts negatively on the experience of patients and their family/carers as it delays acute treatment and increases length of stay in hospital. There are also increased risks associated with moving between hospitals. This is in addition to the negative impact on patient flows, loss of bed days that could be used for other patients and increased clinical work involved in two teams getting to know the patient	

Table 37: Example – Surgery

Current situation	New pathway
Renal patients often need the input of a renal surgeon. This maybe because of a surgical issue with their transplant, or with their vascular or abdominal access for dialysis. Currently at St Helier surgeons visit the unit regularly and are on call for advice but are not on site every weekday, or available in person at the weekends or overnight . This can delay a surgical opinion , or inhibit quick intervention for a problem with dialysis access. On occasions it can necessitate transfer to St George's in this situation the patient may need to wait for a bed delaying treatment and extending length of stay.	In a combined renal unit, a renal surgeon covering transplantation and dialysis access would be available 24/7 at St George's, as would interventional radiology. There would also be around 15 dedicated renal theatre sessions every day. Patients would therefore be able to receive immediate surgical advice and if needed prompt surgical procedures , providing equal access for all patients in the combined service.

Table 38: Example – Nephrology. From St George's view...?

Current situation	New pathway
SGUH colleagues please can we have some examples of how pathways such as PD and Home HD will be improved for your patients? Needs to be simple as writing for patients not senate.	

5.7 Research

Public Health England has predicted increasing numbers of patients in south London with progressive kidney disease which will lead to 2–3% per year increase in numbers of patients requiring end-stage kidney disease therapy. Laboratory research focuses on mechanism of progression of kidney disease and test interventions that may prevent end-stage kidney disease.

The main cause of hospital admissions and death in dialysis, kidney-transplant and advanced CKD patients in are cardiovascular complications, for example heart attacks and strokes. The clinical research is focused around understanding the mechanism of cardiovascular complications and methods of prevention.

A single renal unit encompassing the current renal activities of SGUH and ESTH has the potential to support a large successful multidisciplinary research group.

By exploiting existing strengths in both the clinical and academic areas as well as well as developing research in response to new needs the Renal Research and Education Unit at St George's could become a centre of excellence with national and international influence.

The renal unit at Epsom and St Helier is home to the South West Thames Institute for Renal Research (SWTIRR), an independent renal research institute. The vision for a collaborative research and education facility in South West London will bring together the unique strengths of our academic scientists, clinicians and clinical trialists from Epsom and St Helier, encompassing SWTIRR, St Georges University Hospital NHS Foundation Trust and St Georges, University of London, to deliver a strong and exciting portfolio of scientific, translational and clinical renal research.

Strengths of the new unit

The two units combined population of patients on renal replacement therapy will make the new South West London Unit the third largest in the country according to the 2018 UK Renal Registry data

The new unit will manage large cohorts of patients with following conditions, which provides a unique opportunity of high quality translational and clinical research and clinical training:

- Kidney transplantation
- Vasculitis and glomerulonephritis

- Podocytopathies
- Cardiovascular disease in CKD, dialysis and transplant patients
- Patients with complicated dialysis vascular access
- CKD patients including patients diabetic nephropathy
- Patients with acute kidney injury
- Complex hypertension

Opportunities

Large patient populations, the basic science institute and a large number of research active clinicians will the foundation for successful research, excellent postgraduate training and commercialisation of intellectual property. This provides an opportunity to test new ideas of research to serve the needs of the patients.

5.8 Conclusion

This evaluation therefore finds the co-location of acute renal services at SGUH to be the preferred option on the basis that:

- It offers the best value for money of the options
- It delivers the most significant qualitative benefits
- It is appraised as carrying less qualitative and quantitative risk compared to all the other options
- Due to the capital associated with acute renal services at the SECH, the additional capital requirement of the scheme is £52m
- It is more affordable than the business as usual and do minimum options
- The business as usual (BAU) option is not a tenable option

The following sections focus on only this preferred option.

Table 39: Summary of benefits of the 'preferred option' (co-location) compared with 'do minimum' (SACH)

Type	Category	Sub criteria/benefit	Option 2 Do minimum	Option 3 Co-location
Qualitative benefits	Quality and experience	Demand and capacity	+	+ +
		Patient experience	-	+ +
		Patient outcomes	-	+ +
		Workforce	- -	0
	Strategic alignment	Reputation and quality	0	+ + +
		Research and education	-	+ + +
	Deliverability	Timeliness	- -	n/a
		Accessibility of funding	-	+
		Stakeholder support	-	n/a
Financial benefits		IHT benefits	703	703
		Consultant efficiency	–	310
		Middle grades – WTE reduction	–	209
		SHOs – WTE reduction	–	236
		Nursing workforce WTE efficiency	–	133
		Other workforce WTE efficiency	–	205
		Reduced cost of dialysis trailers lease	260	260
		Additional income (clinical trials)	–	119
		Vascular access	–	788
		Dialysis efficiencies	–	481
		Total financial benefits	**963**	**3,444**
Economic benefits		Length of stay reduction (1% per yr for 10 years)	–	632
		Inpatient to day case conversion (2 beds)	–	265
		Total economic benefits	**–**	**897**
Costs		Gross capital investment (£m) in 2029/30	(87.4)	(82.0)
Net present social value		NPSV – financial benefits only	148.9	196.2
		Additional economic benefits (productivity)	–	13.6
		NPSV including economic benefits	**148.9**	**209.8**

6 Engagement

Engagement is key to a successful outcome, improving the quality of care and experience for renal patients in South West London, Surrey and neighbouring areas. Engagement will take place to ensure all feedback is considered and issues are addressed.

It is important to note that approximately 95% of renal patient contacts would not be affected by a move of acute/specialist services to St George's: chronic dialysis and most outpatient appointments would continue to be provided across South West London and Surrey, close to patients' homes.

Nevertheless, we want to ensure that the proposition is based on robust engagement with all relevant and interested stakeholders, especially patients and staff.

Once capital is approved (as the renal proposal equates to a service change not covered within the IHT consultation) we will follow the appropriate steps for service change with our commissioners. This will include development of commissioner assurance information, detailing the level of change to support wider discussions with the relevant overview and scrutiny committees to agree the required scrutiny process.

Our patient and public participation activity will be undertaken with due and proper compliance with the:

- Patient and public participation in commissioning health and care: statutory guidance for CCGs and NHS England[20]
- Involving people in their own health and care: statutory guidance for clinical commissioning groups and NHS England[21]

6.1 Our approach to public and patient participation

Extensive engagement, including public consultation, has taken place on IHT proposals to consolidate acute services at Epsom and St Helier hospitals into the Specialist Emergency Care Hospital.

In response to the public consultation, clinical renal leaders proposed a further consolidation of renal care.

As a result of the feedback during consultation, our commissioners asked us to explore this further. In doing so, we have engaged with:

- Clinical leaders (both internally at the two trusts and with South London Renal Clinical Alliance)
- The St Helier and Surrey and St George's kidney patients associations
- Renal staff at both hospitals

Our engagement activities aim to:

- Ensure that people living in the areas of SWL, Surrey and surrounding areas who might reasonably be expected to require care in a renal inpatient facility (and people living in Wandsworth who might be expected to access home therapies training) are aware of and understand the case for change and the proposed options for change, by providing information in clear and simple language in a variety of formats
- Provide aligned messages that are relevant to patients and staff at both St George's and St Helier hospitals, while complementing the broader engagement work on the planning for the new Specialist Emergency Care Hospital
- Deliver the facts on the proposals to stimulate an informed discussion
- Answer questions raised by stakeholders in a clear, concise and consistent way
- Ensure any concerns raised will be heard and a resolution sought
- Ensure impacts on groups protected under the Equality Act 2010 are fully taken into account and mitigated

6.2 Identifying stakeholders

Stakeholders have been identified using the following methodology:

- Patients and patient interest groups – those who currently use inpatient or outpatient renal services provided at or through St Helier and St George's and those who represent them
- Clinicians and staff – those who lead or provide renal services at the two sites plus relevant hospital colleagues
- NHS organisations – relevant regional (specialised commissioning) and local secondary, primary and community care partners

[20] Patient and public participation in commissioning health and care: statutory guidance for CCGs and NHS England, NHS England, April 2017
[21] Involving people in their own health and care: statutory guidance for clinical commissioning groups and NHS England, NHS England, April 2017

- Council and parliamentary – relevant local councils and Members of Parliament for South West London and Surrey
- Healthwatch, community, third sector and other stakeholders which are identified before or during the engagement

Further checks will be made with local commissioners and partners to make sure all relevant stakeholders are identified.

6.3 Engagement tools

During this pre-engagement phase, our engagement is based on building awareness of the proposed changes and eliciting early responses from the kidney associations and clinical teams through virtual and face-to-face meetings. As the engagement progresses, the programme team expect to use a range of methods including direct correspondence; further meetings and briefings (in line with COVID-19 social distancing regulations); physical material; and online and digital surveys. The full approach will be set out in the programme's communication and engagement strategy.

6.4 Engagement undertaken

The table shows the engagement undertaken to date:

Table 40: Summary of engagement to date

Date	Group	Item(s) discussed
October 2020	Renal staff at both trusts	• Clinical model and benefits
October 2020	Kidney patients associations chairs	• Case for change; approach to patient engagement
October 2020	South London Renal Clinical Alliance leadership	• Clinical model
November – December 2020	ESTH and SGUH Trust boards	• BYFH OBC
December 2020	Specialised Services Recovery Oversight group	• Consideration of case for change and proposed process and timetable by NHS England (London)
December 2020	Strategic Oversight Group (of the IHT/BYFH programme)	• Consideration of case for change and proposed outline of decision-making process and suggested timetable by the Strategic Oversight Group.
December 2020	IHT Committees in Common	• Co-option of NHS England for purposes of considering renal business case • Agreement to submission of BYFH OBC including renal option • Agreement to decision-making process and if supported, commencement of initial engagement period
March 2021	South London Renal Clinical Alliance	• Clinical model and benefits
March 2021	St George's Kidney Patients Association St Helier Kidney Patients Association	• Case for change • Clinical model and benefits • Travel time impacts
March 2021	IHT Joint Health Scrutiny Sub-Committee (SWL/Surrey)	• Update on proposal (as part of wider update on BYFH progress) • Headline clinical benefits
March 2021	Surrey Heartlands/Frimley Specialised Commissioning Board	• Case for change • Proposed process

Date	Group	Item(s) discussed
March 2021	South West London Specialised and Cancer Recovery Group	• Case for change • Proposed process
April 2021	South West London Clinical Leadership Group	• Clinical model
May 2021	JOSC and deputy Chair (SWL/Surrey)	• Briefing to inform scheduling of JOSC discussion
May 2021	Surrey Heartlands Clinical Multi-Professional Executive	• Clinical model

6.5 Key themes from engagement

To date, the key themes emerging from engagement have primarily focused on changes to journey times for patients who would need, under the proposals, to travel to St George's for inpatient or acute care. This early feedback has led the programme team to begin developing material to show these changes as clearly as possible. In addition to journey times, the availability and costs of parking have also been raised.

Another key point raised is that the engagement should provide reassurance that much-valued existing arrangements/relationships for regularly accessed services will not be affected, with the change limited to infrequently accessed/one-off services (e.g. surgery) which will deliver significant quality and experience benefits.

Stakeholders have also made important comments about accessibility and design issues for the new unit, which would apply whether it were built at Sutton or St George's. These will be picked up during the design stage led by the trust that will build the unit.

6.6 Planned future engagement

An indicative timetable for this engagement will be discussed at the CiC meeting on 22 June 2021. The proposed process is as follows:

Table 41: Summary of planned engagement

Date	Group	Item(s) for discussion
July - August 2021	TBC	• Formal engagement
September – October 2021	TBC	• CCGs consideration of outputs of engagement and deliberation. Commissioner decision making through the CiC
October – November 2021	TBC	• Subject to the commissioners' decision, progress to full business case (FBC)

6.6.1 Public communication for the transition of services

The BYFH Programme Communications and Engagement strategy outlines the communication principles, key messages and delivery methods for the programme, including for communication around the transition of services. This project will align with that strategy to ensure consistency.

Communication and engagement will be two-way and delivered through a range of formats including presentations to local communities (aligned to current social distancing policies); social and digital formats; media briefings; executive level briefings to key stakeholders; and physical material on sites.

During the development of the FBC the Renal Unit project communications and engagement strategy will continue to be reviewed and updated to include further detailed planning around transition communications to patients, users and the public.

7 Implementing the preferred option

This section sets out the facilities and services that would need to be provided at St George's to implement the preferred option. The model has been designed with clinicians to optimise the quality of the service provided to patients, and in turn improve the clinical outcomes achieved by patients.

Management of risks, dependencies and constraints is also vital for successful implementation. Risks have been identified and defined at a high strategic level with high level mitigations. The approach to managing the risks associated with building the new facility and managing the transition are set out in the BYFH OBC. Likewise, there are a number of constraints that the trust leading the development of the facility would need to plan around.

COVID-19 has been taken considered and changes to service during the pandemic noted. For renal services specifically, the impact of COVID-19 is still being evaluated. As with all services provided by the NHS, there may need some future adaptations to the delivery model.

7.1 Delivery model for the preferred option

A successful co-located option at St George's would incorporate the following facilities and services:

- Three 28-bed wards (84 beds) which would provide services for

  Inpatient activity that currently takes places at ESTH and SGUH, based on the forecast activity, agreed length of stay and conversion to day case impacts, the following will be provided:
  70 inpatient beds, including 6 higher acuity beds
  14 day-beds in an acute assessment unit for patients needing day observations/procedures
- 3 treatment/procedure rooms
- 24 acute dialysis stations
- 8 outpatient clinic rooms (in addition to other outpatient consultation rooms on the St George's site for less acutely unwell patients)
- An additional treatment room within the outpatient area
- Administration offices for essential renal service staff
- 2 phlebotomy rooms

In all scenarios, renal services will also require access to the following on the SGUH site:

- Access to c.15 dedicated theatre sessions for renal theatre activity (by 2030). Transplant operations will require access to two theatres in close proximity.
- Access to c.9 dedicated interventional radiology sessions for renal activity
- Facilities for training and research
- In addition to the above, home therapies would be provided at a single site for both ESTH and SGUH patients. This would ensure a dedicated space of sufficient size and which was separated from the acute activity. This is advantageous to reduce the risk of infections from the acute site to outpatients. There will be access to a larger peritoneal dialysis service for SGUH patients with opportunity for peritoneal dialysis under local anaesthetic (LA PD) insertions.

This model has been designed with clinicians to optimise the quality of the service provided to patients, and in turn improve the clinical outcomes achieved by patients. Co-locating the core renal services enables both trusts to improve efficiency and quality. The service must also be co-located with other major acute specialties to ensure renal patients have quick access to expertise and intervention as necessary.

Additionally, the clinicians from both trusts have set out the following design principles for each key component of the clinical model:

Table 42: Key requirements and design principles

Area	Key requirements and design principle
General principles	• 4 treatment/procedure rooms required – 1 on each ward (1 of the 3 to be a procedure room), 1 procedure room in the outpatient area, allowing for sufficient capacity to support increased vascular access • All ambulatory services to be co-located • Frimley provision remains as is with some assessment unit/surgical unit/inpatient activity • Ambition to establish interventional nephrology as a service, providing sufficient capacity for ESTH IR activity with growth, continuing to foster close working between renal and IR consultants. • Require adequate space for MDT/teaching
Acute Assessment Unit	• 14-bed area for AAU – day case patients requiring procedures/investigations • Infusion capability can be delivered at AAU instead
Dialysis unit	• Main dialysis unit (24 stations) • Requires sufficient waiting space • Work on two sessions per day for inpatients, and three sessions per day for day attenders. Given that the expected high acuity of inpatients, and day attenders (by definition, only those patients who are more unstable will receive dialysis treatment here), it is not planned to provide nocturnal dialysis in the new unit. • Used by inpatient outliers; new starters (only medically unstable exceptions from ESTH); satellite returnees
Inpatient beds	• Inpatient renal beds to have dialysis capability (water supply and RO) – oxygen piping suitable (sizing) • 6 higher acuity beds • 72% single rooms, whilst ensuring visibility into all rooms. This will meet HBN requirements, align with the proportion of single rooms in the SECH, and meet the requirements of the renal teams. • Single rooms to be en suite; bays to be 4-bedded • Wards to be in line with new infection control procedures • Procedure rooms nearby, enabling procedures to be done locally, rather than in a theatre where appropriate • All rooms to be well ventilated/have climate control per room
Outpatients	• Requirement for acute outpatient clinics (e.g. acute vasculitis and transplant clinics) and phlebotomy provision • Acute outpatient provision at SGUH • Technology required to enable virtual outpatients, but face-to-face outpatients will still continue (virtual outpatients as per IHT – needs further work to understand impact of the recent shift to virtual)
Home therapies	• HH and PD to be co-located at ESTH (St Helier) • PD for acute patients in inpatient beds (nursing based at SGUH) • Longer-term ambition to have closer-to-home Kidney Care Centres (expanded dialysis centres)
Impact on other services	• The combined service will access to dedicated IR sessions or equivalent (Theatre with C-Arm) providing sufficient capacity for both SGUH and ESTH current activity plus growth and changes to the model of care. This is forecast to require access to up to 9 dedicated IR sessions per week by 2030. • The combined service will access to dedicated theatre sessions providing sufficient capacity for both SGUH and ESTH current activity plus growth and changes to the model of care. This is forecast to require access to up to 15 dedicated theatre sessions per week by 2030. • Impact on critical care, cardiology, therapies etc to be consumed by SGUH services. Based on initial analysis, these are not assumed to be significant when considering the scope of SGUH services. For instance, patients transferring from renal wards to critical care at ESTH occupy approximately 180 critical care bed days per year (equivalent to c.0.5 beds), where SGUH has 70 critical care beds and is investing in additional critical

Area	Key requirements and design principle
	care capacity. Many SGUH specialties that will cater to renal patients in the new joint unit already cater to ESTH patients who are currently transferred as inpatients (e.g. cardiology). Similarly, vascular access surgery for ESTH patients is already provided by the surgical service at SGUH. The impacts will be explored further in the FBC.

As the design of an agreed option develops, more detailed design principles will be agreed, ensuring the design meets current and emerging requirements, such as for one-way flow and patient segregation and isolation.

If a combined unit were to proceed, the trusts would manage the new joint renal unit on a partnership basis, building on and learning from collaborative models already in place between the two organisations (such as for the South West London Elective Orthopaedic Centre). The trusts intend to develop the detail of this collaborative model as part of developing the FBC.

7.1.1 Digital

The approach to digital integration will be developed in the FBC. ESTH have recently reprocured their EPR solution via a competitive process, and have selected a shared domain with SGUH to make it easier for patients to be treated, and for clinicians to work collaboratively across South West London. In addition to clinical systems, it is intended that the service will implement PatientView[22], a service provided by the Renal Association, which enables patients to:

- See their health record
- See test results and correspondence
- Enter readings relevant to their condition
- Send and receive messages

NHS England encourages renal units to promote PatientView with the aim of improving patient engagement.

7.2 Strategic risks, constraints and dependencies

The main risks associated with the potential scope for this project are outlined below, together with the anticipated high-level mitigation. The approach to managing the risks associated with building the new facility and managing the transition are set out in the BYFH OBC.

Table 43: Main strategic risks

Risk	Mitigation(s)
1. There is a risk that a single site cannot accommodate the theatre, IR and other clinical activity associated with the patients that will transfer from ESTH	Theatre and IR activity modelled to 2030. Additional activity requirement incorporated into SGUH activity planning. Renal patients in the new unit will access theatres from elsewhere on the St George's site (primarily expected to be Atkinson Morley Wing or St James' Wing, given their proximity to the renal unit, subject to the trust's estates strategy). Renal clinicians from both trusts have confirmed that these theatres are in an appropriate part of the site in relation to the proposed new renal unit to facilitate easy access and that this is a clinically appropriate arrangement. St George's is committed to ensuring it has adequate theatre capacity to cater to the new renal unit. St George's currently has 29 theatres, with an average of just over 7 theatre sessions a week taken up with renal work. Approximately 4 sessions a week are taken up with renal work at Epsom St Helier. Growth and clinical improvements (e.g. in vascular access) are expected to mean that the theatre sessions for both services combined are expected to grow from this combined 11 sessions to 15 sessions by 2030. St George's will ensure it has adequate capacity by: • Delivering improvements in productivity • Taking a South West London approach to planned care, which might see appropriate surgical work currently seen at St George's delivered at other SWL hospitals in future. • Investing in the trust's theatre capacity if necessary, including accommodation of projected renal activity growth

[22] PatientView

Risk	Mitigation(s)
2. There is a risk that new capital or revenue pressures, or an inability to deliver all the financial benefits, result in the scheme becoming unaffordable	The capital costs have been identified based on a detailed design and include 15.4% Optimism Bias. The capital cost will be developed further with cost tightly controlled and managed through the implementation period. The affordability of the case is better than the Business As Usual option, and any further revenue pressures will be addressed through the trust's Long-Term Financial Planning.
3. There is a risk that stakeholders do not support the proposition	There has been some early engagement with staff and both trusts' Kidney Patients Associations as part of the development of this PCBC and the previous capital OBC. The purpose of this is to test plans, identify potential challenges and concerns so these can be addressed through the delivery of the scheme. A communications plan has been developed that will thoroughly articulate the benefits of this scheme to patients, staff and the wider health and care system, seek their views, and ensure their views shape the proposal as it develops.
4. There is a risk that external factors impact the delivery of renal services before the new unit is built, impacting the clinical model, or design of the building	Throughout the development of the OBC and PCBC, the project has sought to identify potential future changes through engagement with experts, such as the South London Renal Clinical Alliance. Furthermore, the design of the new unit is such that there is some flexibility to address new requirements. Any further changes identified will be incorporated into the trusts' planning processes.
5. There is a risk that the nursing staff at ESTH, who live locally to St Helier decline to transfer to the new unit	Early engagement with staff, flexible working patterns, options of rotation between St Helier and St George's. The project will clearly articulate advantages of co-location and will ensure vacant posts are recruited to early with transparency on the location of posts in the future.
6. There is a risk that the implementation of the proposed strategy does not align with system aspirations for digital interoperability and sustainability	ESTH and SGUH anticipate using a fully interoperable EPR arrangement by the time that this proposal is implemented. The new unit will work closely with partners in outreach and outpatient settings, and with primary care, to ensure that appropriate data sharing arrangements are put in place. Existing interoperability arrangements developed between the St Helier service and outreach locations will be maintained or improved. Further detail will be developed at FBC stage. The development will be part of the New Hospitals Programme and will therefore meet core net zero carbon standards for all NHP projects. Further detail will be developed at FBC stage.

7.2.1 Constraints

The project is subject to the following constraints:

Table 44: Constraints

Constraint	Description
Capital availability	Additional capital for this scheme, over and above that identified by IHT, has been estimated and presented to the National Joint Investment Committee on 5th August 2020. It was agreed by the committee that the trusts should continue the development of this renal option to be incorporated into the IHT OBC.
Revenue affordability	The scheme must demonstrate how it will be afforded by ESTH, SGUH and commissioners when taking into account the agreed financial settlements and activity impacts of the investment.
Regulatory (buildings)	the facilities delivered by the investment are subject to NHS health building regulations. Where there is a need to deviate from any regulation or standard, this will have to be evidenced with a demonstration on why this is essential.
Regulatory (services)	The services delivered by the investment will be subject to NHS regulations and standards. There is potential for these to adapt and change during the

Constraint	Description
	implementation period, and certainly within the lifetime of the asset, therefore the facilities will have to be adaptable to meet these changes

7.2.2 Dependencies

The project is subject to the following dependencies that will be carefully monitored and managed throughout the lifespan of the scheme.

- System clinical strategy development and changes
- Demographic change and demand
- Operational pressures restricting access to areas for redevelopment
- System financial position and possible regulatory requirements relating to system control totals
- National clinical policy changes
- Other estates works at SGUH

7.3 Impact of COVID-19

The COVID-19 pandemic has had an unprecedented impact across the NHS. Enormous changes were made to manage the surge in critically ill patients, many of whom required ventilation, and to adapt operating models to enhance infection control and mitigate the risks of further spreading the virus in hospitals. To manage this, hospitals and social care worked together to discharge all patients that were medically fit, and therefore better managed within the community or in care homes. The majority of elective surgery was cancelled, freeing up both space and staff to support patients that were critically ill, and avoiding the need for patients without COVID-19 to attend hospital appointments.

For renal services specifically, the impact of COVID-19 is still being evaluated. Some of the changes made during the pandemic has made services more accessible for patients such as telephone and video consultations which now make up a significant proportion of our outpatient consultations. In addition, SGUH have been able to provide home delivery of medications for patients which patients have found convenient. Combining the two services delivered by SGUH and ESTH will enable the trusts to take the best aspects of each service to all patients across SWL and Surrey and improve the equity of care for all patients.

The increased proportion of single rooms within this proposal will also mitigate some of the impacts of COVID-19, enabling more appropriate segregation of patients and staff and increased prevention of infections. Managing patient movements would be more efficient within a new, purpose build renal unit.

7.3.1 Changes to patient flow

A number of points of shared learning have been derived from the response to COVID-19 which have informed this proposal.

- The value of relatively flexible clinical space that can be repurposed during a surge – for example the adaptation of renal day units as surge or cohorting space if required
- Similarly, the flexibility afforded by single rooms, particularly during the early stages of admission and prior to ascertaining the COVID status of a patient
- Because of the clinical vulnerability of renal patients, a requirement to prioritise pathology lab processing for urgent testing – e.g. a 4-hour PCR turnaround time in the case of COVID-19
- Continual surveillance (e.g. through lateral flow testing in the case of COVID-19) of dialysis patients and cohorting of COVID-positive dialysis patients into a single unit/area
- Ensuring cohorting within PTS provision

8 Financial appraisal

This financial appraisal set out the forecast financial implications of the preferred option, covering:

- System/commissioner affordability
- Impact of the preferred option on the combined income and expenditure of ESTH and SGUH renal services
- Key assumptions within the financial case
- External party financial approval required

8.1 System/commissioner affordability

8.1.1 Affordability

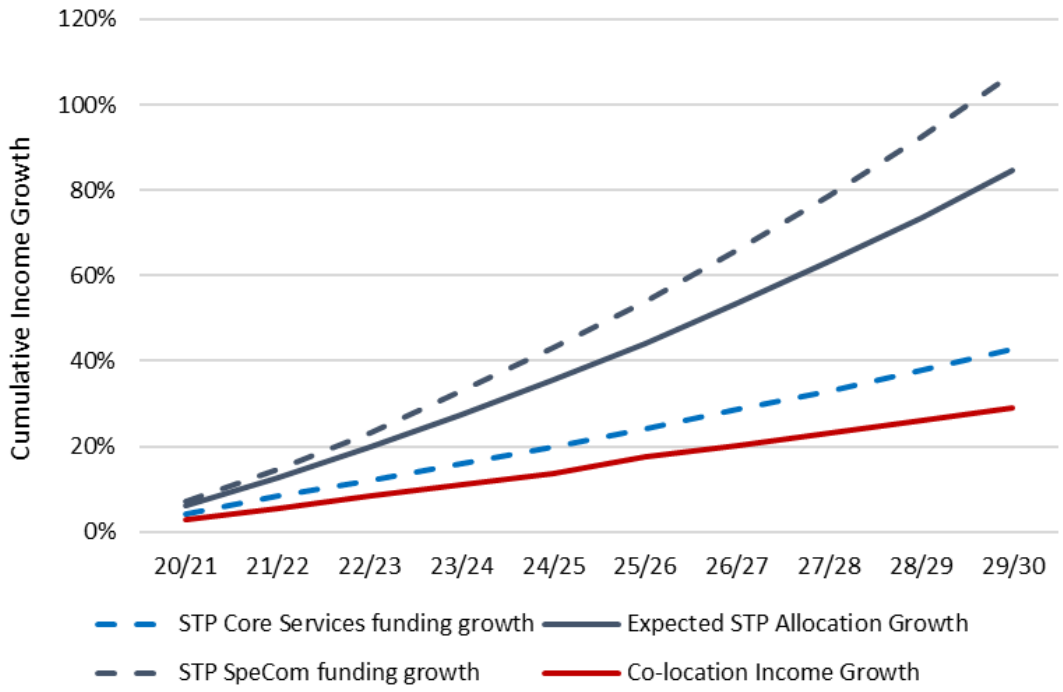
An overall system income growth forecast has been produced to test financial affordability at a system level, based on CCGs allocations 2019/20 to 2023/24[23]. This forecast includes a number of components:

- System allocation growth. Inputs CCG level system allocation growth rates (for both core services and specialised commissioning) and extrapolates these based on simple assumptions to forecast post 2023/24 funding allocations.
- Renal services income growth. Produces an estimate of the growth in ESTH/SGUH income from the preferred option for renal services, reflecting activity expected growth and tariff growth included boosted income as a result of the new configuration.
- Difference. Assesses the difference between system income growth and total ESTH/SGUH renal services income growth, to estimate the affordability of the ESTH/SGUH renal services income envelope to the system; including the level of growth monies which can be used to invest in other parts of the system e.g. community, mental health etc.

This type of analysis has been used to support system affordability analysis for similar business cases at a similar stage.

Overall, the analysis could suggest that significant additional system funding growth (over and above average increases) could be redistributed to other parts of the system. This suggests some flex in the model around funding assumptions.

Figure 12: System affordability analysis



Notes:

- Dotted lines reflect the year on year allocation growth for specialised services (grey line) and core services (blue line) – given a share of ESTH/SGUH renal services are funded through specialised commissioning and a share

[23] CCG allocations 2019/20 to 2023/24 (all funding streams, spreadsheet), NHS England, 2019

are funded through the core allocation formula, these lines reflect an upper and a lower bound of allocation growth, respectively.

- The expected allocation growth line (c.80% income growth over 10 years) assumes c.70% of total renal income (including dialysis and transplant activity out of scope of this proposed change) across SGUH and ESTH is funded through specialised commissioning, with the remainder funded through CCG core allocations. This split is based on the total ESTH renal income of 2019/20, which includes specialised services out of scope of the preferred option.
- The red line reflects the level of year on year income growth for renal services in the business case (c.30% over 10 years) – this lower growth funding suggests the income model for renal services is affordable for the system.
- The difference between the red and grey solid lines (c.50% over 10 years) reflects additional growth funding which the system is able to use to invest in other areas year on year.

Confidence intervals have been included to reflect the uncertainty around system funding growth particularly post 2023/24 and the differences in growth rates between core and specialised services. It is noted that this analysis considers broad growth rates in funding based on simplified extrapolations only, rather than considering detailed allocation funding models on an absolute basis – there is particular uncertainty in funding assumptions post 2023/24, given allocations post this point are not published and have been extrapolated based on 2023/24 values. This indicative analysis should be viewed in this context.

8.1.2 Funding split

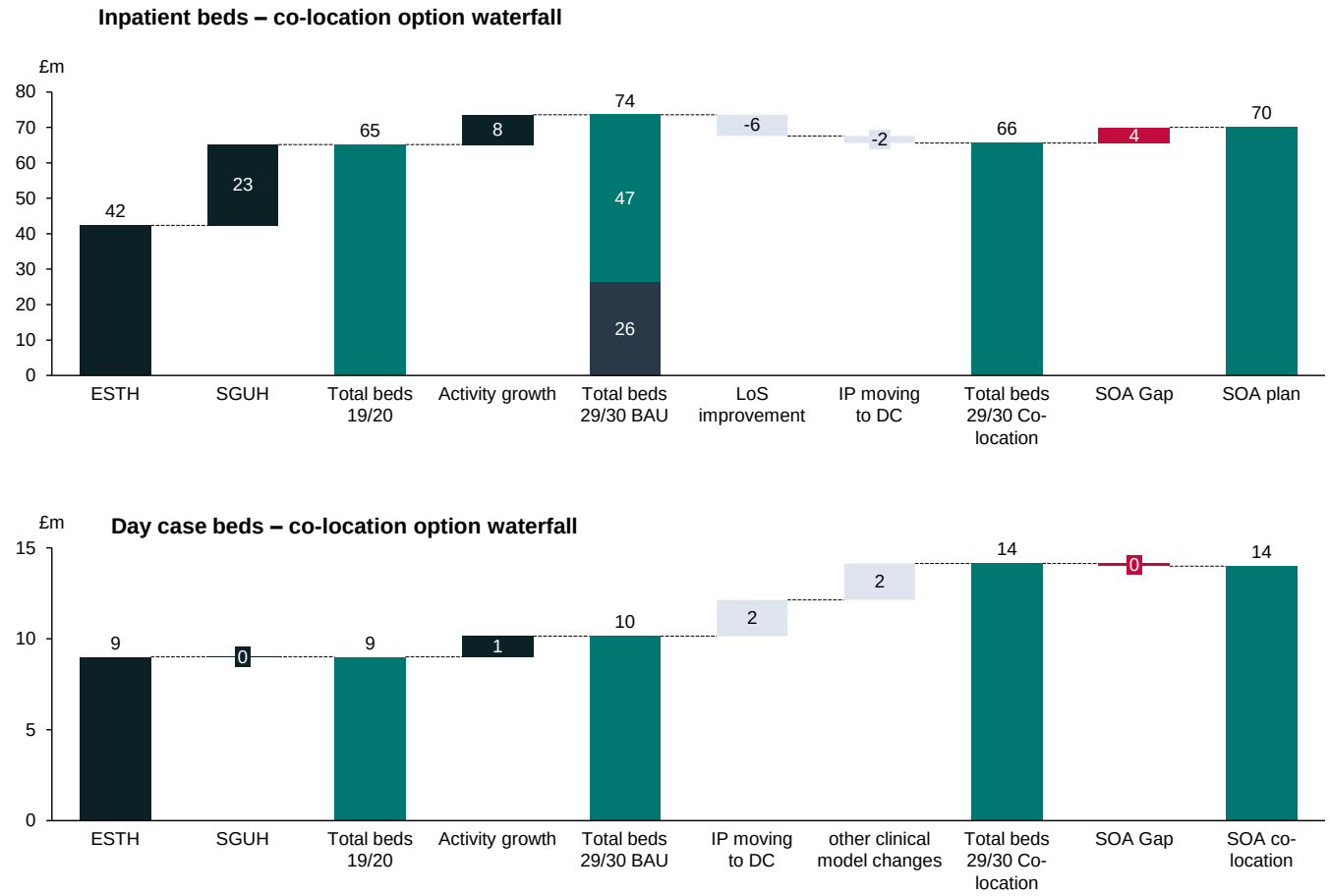
A potential funding split between CCGs and NHSE SpecCom is shown in Table 45 below. This assumes that c.70% of funding will come from SpecCom NHSE and c.30% from CCGs (based on total ESTH renal income split as of 2019/20. It should be noted that this is for all ESTH renal activity. The funding split for the specific renal activity included within the scope of this proposal is approximately 39% is commissioned by SWL CCG, 31% is commissioned by Surrey Heartlands CCG, 14% is commissioned by NHSE Specialist Commissioning with the remaining number commissioned by other CCGs (c.f. section 1.4)

Table 45: Potential funding split

Income source	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Core services	18,023	18,507	19,008	19,527	19,986	20,457	21,195	21,695	22,207	22,731	23,268
Specialised	40,116	41,193	42,308	43,464	44,486	45,533	47,176	48,288	49,428	50,595	51,791
Total	**58,139**	**59,699**	**61,316**	**62,992**	**64,472**	**65,990**	**68,371**	**69,983**	**71,634**	**73,326**	**75,059**

8.1.3 Bed modelling

Figure 13: Waterfall diagrams for inpatient and day case beds



8.2 Provider affordability (summarised from BYFH OBC)

This appraisal has been developed from the current income and expenditure budgets of all renal services provided by both trusts. While the investment focuses on the acute renal services delivered at St George's Hospital and St Helier Hospital, the proposed option will impact and bring together all renal services and patients. Common approaches to identifying the activity, and corresponding income and costs have been used. Impact of COVID-19 is excluded. The appraisal focuses on the affordability of the preferred option against the business as usual financial position of the combined renal services.

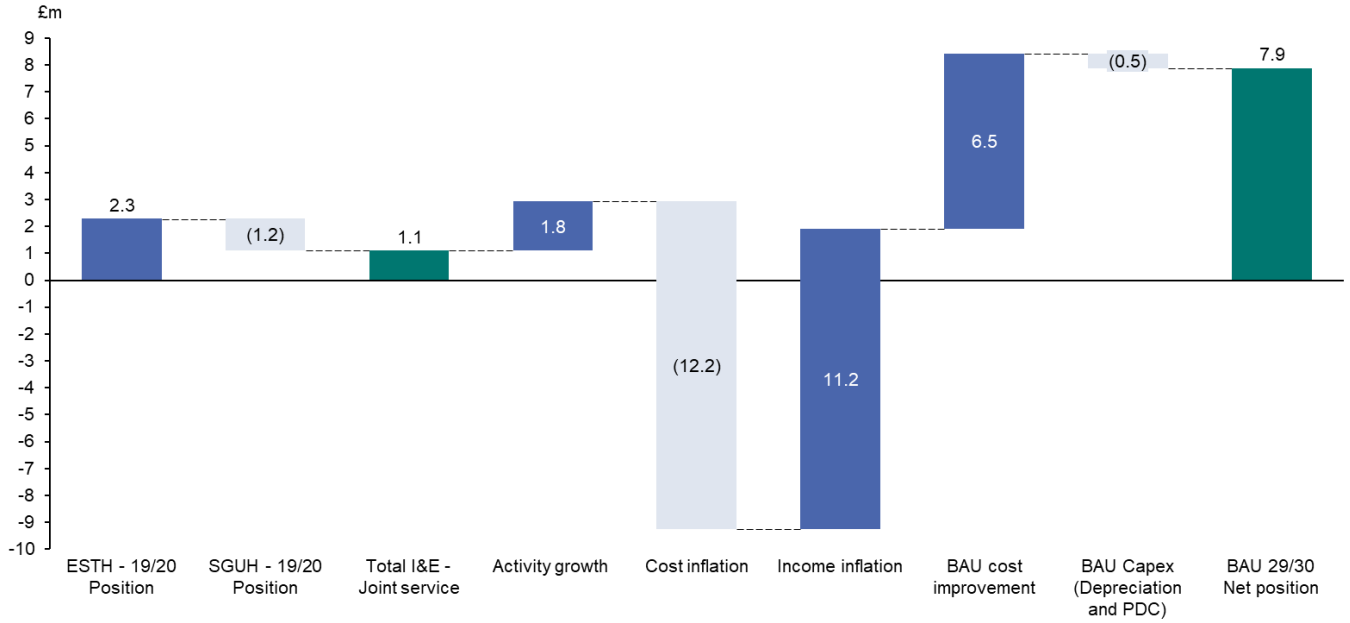
The financial assumptions that underpin the figures outlined below are set out in the BYFH OBC.

8.2.1 Option affordability comparison

BAU financial position

The combined financial position of both renal services presents a £1.1m surplus. This is made up of a £2.3m surplus for ESTH and £1.1m deficit for SGUH. In the business as usual scenario, this surplus is expected to grow to £7.9m by 2029/30. The figure below shows the contribution of each component of the I&E.

Figure 14: BAU scenario – ESTH and SGUH combined 2019/20 to 2029/30 I&E

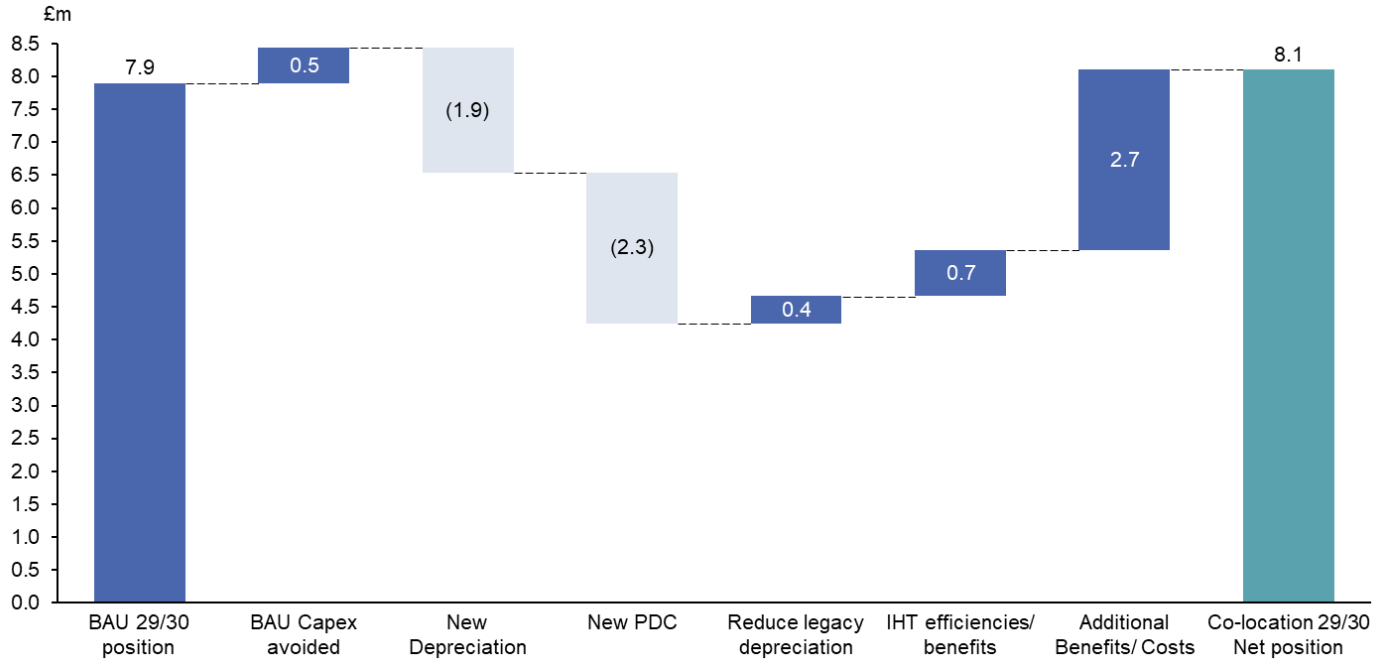


- The 2019/20 positions come from trust financial data for the year 2019/20, normalised for the impact of COVID-19 in the month of March. It includes all renal services activity of both trusts.
- Activity growth is calculated as the combined contribution of income and cost increase determined by the forecasted activity growth, and adjusted for QIPP. Because of cost elasticity lower than 1 (i.e. costs grow slower than activity), income growth is higher than operating costs, leading to a positive net effect on the I&E of c.£1.8m.
- The difference between cost and income inflation contributes to the reduction of the I&E position of £1.0m.
- The BAU financial projection includes a large CIP contribution (£6.5m) estimated assuming 1.1% p.a. cost reduction for the next 10 years (set equal to the NHS national efficiency factor).
- The BAU capital plan was computed assuming a combined £8.5m capital investment (backlog maintenance cost) equally distributed across 10 years. The resulting additional capital charges and PDC would lower the I&E by further c.£0.5m.

Co-location financial position

Investing c.£82m to create a joint renal unit will deliver significant financial benefits. This includes a reduction in legacy depreciation associated with vacated buildings, efficiencies identified through IHT and additional benefits that are delivered by bringing the two services together.

Figure 15: Co-location option – ESTH and SGUH combined 2029/30 I&E



- Under the co-location scenario the hospitals would save c.£0.5m from not having to invest additional capital to cover their backlog maintenance costs.
- The £82.0m capital costs will result in c.£4.2m additional costs (depreciation and PDC charges) in 2029/30m including an impairment agreed by the finance and activity group and renal project group, following professional advice.
- The reduced legacy depreciation under the co-location option includes savings from both hospitals contributing for a total of c.£0.4m (£0.37m for ESTH and £0.07m for SGUH).
- The IHT benefits are £703k
- Additional financial benefits indicate co-location benefits contribute £2.7m. These are outlined in Table 27 in Section 5.5.

The co-location option therefore improves the I&E of the combined renal services by £0.2m vs the BAU in 2029/30.

8.2.2 Overall financial position

A summary of the overall financial position for in scope renal activity of both trusts, and the options is provided below. These provide the figures that support the waterfall charts above.

Table 46: Option comparison – summary overview

Type	Description	SGUH	ESTH	BAU	Do minimum	Co-location	Co-location + theatres
Estates and capital	Bed number	23*	45	65	71	68	68
	Gross capital investment (£m) in 2029/30	3.2	5.5	8.8	87.4	82.0	91.7
Finance	Net capital investment (£m) as % of total 2029/30 income	0.2	0.3	0.1	1.2	1.1	1.2
	Income (£m) in 2029/30	25.4	48.8	74.2	74.1	75.1	75.1
	Expenditure (£m) in 2029/30	(24.4)	(41.9)	(66.3)	(69.3)	(67.0)	(67.4)
	Of which: CIP efficiencies (cumulative from 2019/20)	2.4	4.1	6.50	6.50	6.50	6.50
	Financing costs (PDC) (£m) at 3.5%	(0.1)	(0.2)	(0.2)	(2.7)	(2.3)	(2.6)
	Depreciation charges (£m) in 2029/30	(0.1)	(0.2)	(0.3)	(2.2)	(1.9)	(2.0)
	IHT benefits			0.0	0.7	0.7	0.7
	Additional benefits/costs (£m) in 2029/30			0.0	0.2	2.7	2.7
	Legacy depreciation and PDC no longer paid (£m) in 2029/30			0.0	0.4	0.4	0.4
	Benefits + CIPs			6.5	7.5	9.9	9.9
	Benefits + CIPs as % operating costs			9.8%	10.8%	14.8%	14.7%
	Surplus/(deficit) I&E (£m) in 2029/30	1.0	6.9	**7.9**	**4.9**	**8.1**	**7.7**

Type	Description	SGUH	ESTH	BAU	Do minimum	Co-location	Co-location + theatres
Economic	NPSV – financial benefits only			185.9	148.9	196.2	189.4
	Additional economic benefits (productivity)			0.0	0.0	13.6	13.6
	NPSV including economic benefits			**185.9**	**148.9**	**209.8**	**202.9**

*Includes 5 beds worth of activity to accommodate occupancy adjustment and outliers.

As outlined within the economic case, the co-location option optimises value for money and when considering only financial benefits, it is more affordable than the BAU option, improving the I&E position of the combined renal services by c.£200k.

If the renal unit scheme is approved, the total capital required to be funded via Public Dividend Capital will not be the total £82m, as the SECH build will reduce in size as the renal space will no longer be required. As a result, the associated capital cost of the SECH will reduce by c.£30m.

9 Approval process

Approval of document, the preferred option, and the decision to go to engagement will be made by the commissioners following review of this PCBC.

A renal commissioner steering group (CSG) has been convened with membership from South West London, Surrey Heartlands and Frimley CCG/ICSs, and NHSE Specialised Commissioning Teams, for the document to be considered by Committees in Common (CiC). Approval will be given by a CiC of the statutory commissioners. NHSEI has a role to both support and assure the development of proposals by commissioners.

NHS Surrey Heartlands, NHS South West London CCGs, NHSEI specialised commissioning and North East Hants and Farnham CCG have asked the Clinical Senates of London and the South East (Kent Surrey and Sussex), to provide a third independent review on their proposals, many of the recommendations of which are incorporated here.

The South West London and Surrey Joint Health Overview and Scrutiny Committee (JHOSC) has reviewed and will continue to review our work as it relates to the planning, provision, and operation of health services in their local area.

9.1 Governance and decision-making

9.1.1 Context

The pre-consultation business case (PCBC) has been developed following the OBC developed by ESTH and SGUH in 2020, which proposed that inpatient care should be consolidated at St George's instead of Sutton. Whilst drawing heavily on the OBC developed by the trusts, commissioners have also considered the potential impacts on health inequalities and protected characteristics of the proposed clinical model via the Equality Impact Assessment.

9.1.2 Governance, roles and responsibilities

The work on this PCBC has been undertaken by the Renal Reconfiguration Delivery Group, which comprises member of staff from the commissioners and providers involved. Approval of the document, the preferred option, and the decision to go to engagement will be made by the commissioners following appropriate assurance processes as set out below.

Figure 16: Governance bodies

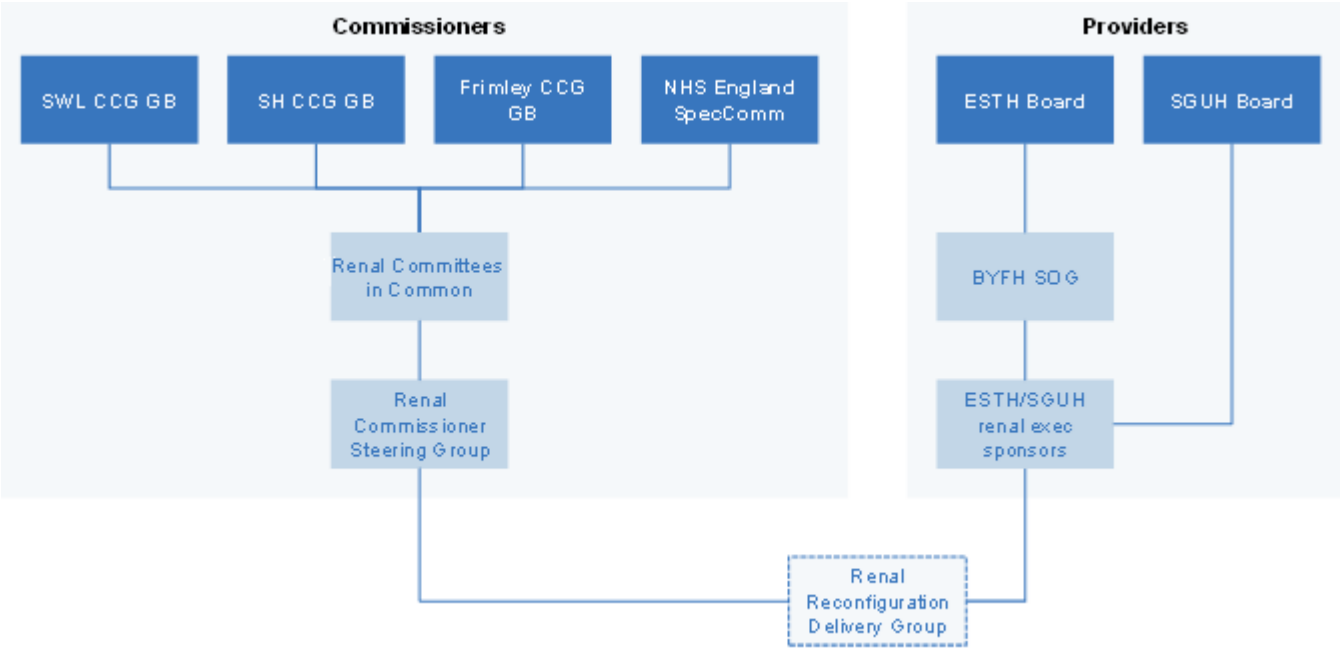


Table 47: Governance body roles and responsibilities

Body	Roles and responsibilities	Who
NHS South West London CCG Governing Body NHS Surrey Heartlands CCG Governing Body NHS Frimley CCG Governing Body NHS England Specialised Commissioning	• Receive information on the PCBC, engagement plan and DMBC • Delegate authority to approve/agree plans to the CiC	
Renal Committees in Common	• Approve the PCBC, engagement plan and DMBC in line with delegated authority and based on recommendations from the CSG	CiC members plus co-optees as required
Renal commissioner steering group (CSG)	• Scrutinise and comment on the draft PCBC, engagement plan and DMBC • Review and agree the response to, recommendations from the clinical senates • Recommend approvals to the CiC	SWLCCG exec lead and SRO, SHCCG exec lead, NHSE exec lead, programme director, comms exec lead
Renal reconfiguration delivery group	• Monitor delivery against the programme plan • Identify and agree mitigations to programme risks • Take actions to deliver key tasks • Develop the engagement plan • Prepare and mobilise the engagement/commission the preparation and mobilisation of the engagement • Deliver the engagement report	SWLCCG exec lead, SGUH lead, ESTH leads, C&E leads, programme director, advisors
Epsom and St Helier University Hospitals NHS Trust Board St George's University Hospitals NHS Foundation Trust	• Receive programme updates	
Building Your Future Hospitals Strategic Oversight Group ESTH and SGUH renal exec sponsors	• Receive programme updates • Link the programme to renal clinicians in both trusts and related BYFH processes (capital approvals, design etc.)	

9.1.3 Review by renal commissioner steering group

A renal commissioner steering group (CSG) has been convened with membership from South West London, Surrey Heartlands and Frimley CCG/ICSs and NHSE Specialised Commissioning Teams. The purpose of the CSG is to review and assure the quality of materials provided to the CiC, and to contribute to the development of the PCBC and engagement planning.

9.1.4 Approval by IHT Committees in Common

As part of the IHT process, CCGs in South West London and Surrey Heartlands convened a Committees in Common (CiC) to consider and make decisions in relation to key parts of the process. South West London CCG and Surrey Heartlands CCG have made formal delegations to this CiC which permit decision-making on behalf of the entire board. It is proposed that a similar CiC will be convened, with amendments to the membership to include Frimley CCG and NHS England Specialised Commissioning.

9.1.5 Assurance by NHS England and NHS Improvement

NHS England and Improvement (NHSEI) assures CCGs against their statutory duties and other responsibilities under the CCG Assurance Framework. It has a role to both support and assure the development of proposals by

commissioners. Assurance is applied proportionately to the scale of the change being proposed, with the level of assurance tailored to the service change.

NHSEI supports commissioners and local partners to produce evidence-based proposals for service change, and to undertake assurance to ensure they can progress, with due consideration for the government's five tests of service change.

Prior to public engagement, NHSEI considered the financial proposal in terms of both capital and revenue and its sustainability. The proposed preferred option was approved by the Joint Investment Committee to proceed to public engagement.

9.2 Regulatory tests

Any proposal for service change must satisfy NHSEI's five tests of service change[24]:

1. Strong public and patient engagement
2. Consistency with current and prospective need for patient choice
3. A clear clinical evidence base
4. Support for proposals from clinical commissioners
5. Any proposal including plans to significantly to reduce hospital bed numbers should be able to evidence that one of the following three conditions can be met:
    i. Demonstrate that sufficient alternative provision, such as increased GP or community services, is being put in place alongside or ahead of bed closures, and the new workforce will be there to deliver it; and/or
    ii. Show that specific new treatments or therapies, such as new anti-coagulation drugs used to treat strokes, will reduce specific categories of admissions; or
    iii. Where a hospital has been using beds less efficiently than the national average, that it has a credible plan to improve performance without affecting patient care (for example in line with the Getting It Right First Time programme[25])

We set out below how our proposals have met these tests.

9.2.1 Strong public and patient engagement

Given uncertainty about the availability of capital until late May 2021, the specific nature of this proposed change and the coronavirus pandemic, we have undertaken limited patient and public engagement to date. Both Kidney Patients Associations have been involved in both the development of the capital OBC and in preparation for this PCBC.

Our overarching aims in undertaking this engagement activity were as follows:

- To seek feedback on the emerging clinical model
- To seek feedback on the case for change – our vision and challenges

Our engagement to date suggests support for the clinical model. Commissioners and providers intend to undertake further engagement as set out in the chapter above.

9.2.2 Consistency with current and prospective need for patient choice

Given the specialised nature of the service, which is offered by each unit to all renal patients in a defined geographical catchment, patient choice is not affected by the proposal. All services will continue to be provided within the combined geographies. Outpatient and dialysis care will continue to be provided from a wide range of accessible locations.

9.2.3 A clear, clinical evidence base

This PCBC was produced on the basis of clear clinical evidence including GIRFT, UK Renal Registry and national specialised commissioning standards as detailed in the clinical model and case for change above. The clinical model has been endorsed by the South London Renal Clinical Alliance.

9.2.4 Support for proposals from clinical commissioners

Support from commissioners will be secured via the approval of the PCBC.

[24] The five tests of service change, S4.1, Planning, assuring and delivering service change for patients, NHS England, 1 March 2018
[25] Getting It Right First Time, NHS England and NHS Improvement

9.2.5 Bed capacity

There is an overall increase in the number of beds across the system, which reflects the predicted growth in need for renal replacement therapies, tempered by the aspiration of the clinical model to reduce length of stay and to convert to day case when clinically appropriate. The proposed unit would change overall bed capacity as follows:

Table 48: Increase in bed capacity

Bed type	SGUH	ESTH	Proposed unit	Change
Inpatient beds	18 (+5)*	45	70	+2
Day case beds	0	9	14	+5
Dialysis stations	6	Included above	24	

*This reflects the 18 beds provided on the renal ward, and a further 5 beds of outliers, who are renal patients but treated in other wards within the hospital.

No substantive changes to bed requirements are anticipated at subspecialty level.

9.2.6 Mayor of London's six tests

The Mayor has set out six tests for any health service reconfiguration taking place in the capital. These have been considered as follows:

1. **Health inequalities** – The IA that accompanies this document sets out that although there is a potential travel time impact for communities impacted by this proposal, this impact is relatively smaller for patients living in the most deprived 20% of communities. We expect this proposal will support renal specialists to further engage in work in South West London ICS (and affected non-London ICSs) to prevent the later stages of Chronic Kidney Disease.
2. **Hospital beds** – set out in 9.2.5 above
3. **Financial investment** – set out in the financial appraisal
4. **Social care impact** – we do not anticipate any additional burden on social care as a result of this change
5. **Clinical support** – as evidenced by the approach to developing this proposal
6. **Patient and public engagement** – as evidenced by the engagement section above

9.3 Clinical senate review

For substantial service change, it is best practice to seek the local Clinical Senate's advice on proposals. Senate advice is impartial and is informed by the best available evidence and where evidence is limited clinical senates seek to build and reflect consensus.

9.3.1 Previous Clinical Senate reviews

The Improving Healthcare Together 2020 to 2030 programme (IHT) was set up by the predecessor bodies to NHS Surrey Heartlands and NHS South West London CCGs in January 2018 to find the best solutions for the long-standing issues facing Epsom and St Helier hospitals.

NHS Surrey Heartlands and NHS South West London CCGs asked the Clinical Senates of London and the South East (Kent Surrey and Sussex), to provide independent advice on their proposals to improve the future of acute services in the combined geographies of Sutton, Merton and Surrey Downs CCGs. These services are provided by Epsom and St Helier University Hospitals NHS Trust.

The Clinical Senates previously provided their advice in two stages:

Table 49: Previous Clinical Senate reviews

Stage	Date	Scope	Approach
1	September 2018	Review of the issues paper and supporting technical annex (case for change, clinical model and solutions development) to 'Improving Healthcare Together 2020–2030'	A desktop review of the emerging content in parallel with public engagement to inform further development for the PCBC.
2	March 2019	Formal review of Draft PCBC	The Senates reviewed the draft PCBC limited to shortlisted service configuration solutions inclusive of the clinical models for: A&E urgent

Stage	Date	Scope	Approach
			and acute care (inclusive of critical care, renal, acute medicine etc.), planned care, maternity, paediatrics.

In July 2020, NHS Surrey Heartlands and NHS South West London Clinical Commissioning Groups following full public consultation determined the best solutions for addressing the long-standing challenges currently facing Epsom and St Helier hospitals. These included:

- Adoption of the clinical model for the delivery of district hospital services and the specialist emergency care hospital (SECH)
- Agreed the preferred option for the location of the SECH as Sutton, a new specialist emergency care hospital bringing together six services, including renal services, for the most unwell patients, as well as births in hospital
- Continued provision of district hospital services at Epsom Hospital and St Helier Hospital

9.3.2 Third Clinical Senate review

NHS Surrey Heartlands, NHS South West London CCGs, NHSEI specialised commissioning and North East Hants and Farnham CCG have asked the Clinical Senates of London and the South East (Kent Surrey and Sussex), to provide a third independent review on this proposal.

The Clinical Senates agreed to convene a focused expert review panel in order to review the additional reconfiguration option. Their headline recommendations and our responses, whether incorporated into this document or planned for a later stage of the process, are set out below.

Table 50: Recommendations of the Clinical Senate and responses

Theme	Ref.	Recommendations	Response	PCBC amendments
General recommendations	R1	The PCBC cites four challenges in the case for change: Epidemiology and public health, clinical, workforce, estates. The provision of a better quality service with better outcomes is the key driver for this PCBC but could be more clearly articulated and presented in the document.	PCBC amended	Section 5.6 – added Figure 11: Summary of impact; and added additional detail to Table 34: Main benefits areas
	R2	Whilst the context and drivers for the development of the options was acknowledged and understood by the Clinical Senate Expert Panel, it is essential that all options put forward within the finalised PCBC are similarly assessed and described. It may be helpful to illustrate figuratively the benefits assessment of each option, thus enabling the reader to compare and contrast the potential impact for stakeholders, public and patients for each option.	PCBC amended	Section 5.8 – added Table 39: Summary of benefits of the 'preferred option' (co-location) compared with 'do minimum' (SACH)
	R3	The narrative appears somewhat 'acute-centric'. While this may be understandable as the main changes involve those to hospital based services, there could be greater reference to epidemiology and public health challenges including modelling and projections as well as how the preferred option can help to ensure high quality delivery of an 'end to end clinical pathway'.	PCBC amended	Section 2.1 – description of epidemiology consolidated and developed in this section

Theme	Ref.	Recommendations	Response	PCBC amendments
Population health/inequalities. Improved health outcomes and associated activity projections	R4	The PCBC would be significantly strengthened through greater emphasis on the improvements in health outcomes for the population that arise from the reconfiguration. This would have more impact with patients and the public.	PCBC amended	Section 5.6 –additional detail added to Table 34: Main benefits areas
	R5	As a single renal centre (third biggest in the country), the PCBC describes the opportunity to develop a research centre. This may be better described by linking to how that will further address local health needs and improve outcomes for patients. It may be helpful to revisit this within the narrative.	PCBC amended	Section 5.7 – section on research added
Catchment areas and populations in relation to the presented options: Travel	R6	Whilst an assessment of increased travel time is described additional detail would improve the understanding of the possible impact on services. There are generalised statements that the increased travel times are mitigated by the improvements to the services. It will be important within patient and public engagement/consultation to gain a greater understanding of patient/carer views on the potential impact, weighed up against the general benefits of the proposal.	To be addressed in engagement plan and DMBC	n/a
Bed and activity modelling across the shortlisted options	R7	The current 'cautious' activity and capacity modelling and efficiency assumptions would benefit from additional detailed rationale re assumptions and analysis.	PCBC amended	Section 8.1.3 – added Figure 13: Waterfall diagrams for inpatient and day case beds in terms of finance
	R8	There is no detailed bed and activity modelling, including LoS for all options under consideration. The rationale and modelling should provide an understanding of the relative bed requirements of the key sub specialties (peritoneal and haemodialysis programmes, transplant programme, acute kidney injury and general nephrology). It is recommended that summary details on how these may change and be impacted upon by proposed prevention work are included.	PCBC amended Subspecialty modelling to be addressed in FBC	Section 8.1.3 – as above Section 9.2.5 – note added that no substantive changes are anticipated at subspecialty level

Theme	Ref.	Recommendations	Response	PCBC amendments
Clinical model	R9	The Getting It Right First Time (GIRFT) summary report for St Helier highlights as an exemplary area of practice the “highly de-centralised model of care, with nephrology, dialysis and acute kidney injury support close to patients”. The PCBC needs to explain how the new joint specialist model of care will align/improve this assessment.	PCBC amended	Section 4.3 – content on outreach consolidated and developed in this section (see also R14)
	R10	Patient service pathways should be reviewed in association with any projected capacity challenges. The narrative should be revised to provide further information with respect to working collaboratively at a network level with associated disciplines (including imaging and interventional radiology (IR), critical care and vascular services). Additional data and analysis would provide reassurance specifically around IR and critical care capacity within the centralised service option at St George’s.	PCBC amended To be addressed in FBC	Section 7.1 – additional narrative added to Table 42: Key requirements and design principles
	R11	Describe in further detail the anticipated benefits (improved patient treatment and outcomes) of unifying the teams on the St George’s site.	PCBC amended	Section 5.6.1 – detailed examples added
	R12	Whilst capacity has not been described as a barrier, greater detail regarding the pre-dialysis pathway is required, including clear indications of any necessary changes to the pathway.	To be addressed at FBC	n/a
	R13	Further detail is required regarding the pathway and access to day case surgery. There is opportunity to align within the PCBC responses to the GIRFT recommendations re day case surgery.	PCBC amended	Section 5.6.1 – detailed examples added in Table 35: Example – Vascular access
	R14	The PCBC needs to describe how a centralised model at St George’s aligns with the provision of outreach services at Frimley. The panel heard a summary of potential future developments on Panel Day – the current PCBC does not include any details. Additional narrative is recommended.	PCBC amended	Section 4.3 – content on outreach consolidated and developed in this section (see also R9)

Theme	Ref.	Recommendations	Response	PCBC amendments
	R15	Further narrative confirming the pathway for patients presenting with AKI, dialysis and transplant related emergencies and general nephrology emergencies at the new centralised inpatient site as compared to the Sutton option should be referenced including clarity re access to dialysis.	PCBC amended	Section 4.2 – clarifying text added
	R16	The 'end to end patient pathway' must be reflected within the PCBC to include reference to community care pathways and improved management of patients at home particularly if changes to LoS are envisaged that may directly impact on ongoing primary community and integrated care plans.	PCBC amended	Section 2.1.3 – NICE pathway diagram added and explained; use of virtual clinics described
	R17	The clinical model should be positively supplemented through the inclusion of additional detail outlining how existing, critical, local relationships with primary, community, rehabilitation and local authority services at a local place and system level will be sustained and developed within an option that centralises services at St George's.	PCBC amended	Section 5.6 –additional detail on 'Building on existing relationships with the wider health and social care system' added to Table 34: Main benefits areas
Ambulance triage, transfer and capacity	R18	It will be important to make a clear distinction between the Patient Transport Service and Emergency Ambulance parts of the pathway, including where responsibility lies for operational delivery.	Further work is required to engage with emergency ambulance providers during the engagement phase. For context, 1000 emergency admissions a year are potentially impacted by the service change, of which approximately half each will be from SWL and South East England, and not all are via blue light conveyance. There is therefore approximately one conveyance, per ambulance Trust, per day, which is impacted with a c. 4 mile difference in journey length. Both ESTH and SGUH operate PTS services so the impacts on PTS will be addressed at FBC and following engagement with patients so that the potential additional requirements for PTS can be fully understood.	
	R19	Consideration needs to be made of the impact on the ambulance service for conveyance of other patient groups i.e. journey times and turnaround for the ambulance service may be significantly increased.		
	R20	There is no mention of the impact on LAS and SECAmb services and the potential implications to their fleets and staff levels and future workforce planning.		
	R21	The potential additional pressure on the ambulance services, specifically Patient Transport Services (PTS) and or any additional CCG patient transport contracts, is not necessarily accounted for.		

Theme	Ref.	Recommendations	Response	PCBC amendments
Workforce strategy and issues	R22	The trusts are grappling with workforce challenges relating to their major acute services that are far from unique across the country, and many other reconfigurations are being driven by the same pressures. It would help to paint this contextual national picture, so that it is clear this is a shared problem.	PCBC amended	Section 2.3.1 – clarification added that neither service experiences a particular problem with recruitment and retention
	R23	Greater clarity is required through detailing 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.	To be addressed in FBC	n/a
	R24	Whilst granular workforce modelling and analysis is not required within a PCBC some additional detail would provide increased confidence that a full assessment of the potential impact of the proposals on the workforce has been undertaken.	To be addressed in FBC	n/a
Training	R25	The current uncertainty about filling specialist training programmes may be partly mitigated by the centralisation of acute renal services on to one site.	Noted and agreed	n/a
	R26	The PCBC could be strengthened by further describing what plans there are in place to increase opportunities for research and education/training (through a concentration of patients and diversification of case mix).	PCBC amended	Section 5.7 – section on research added
Level of patient, public and clinical engagement	R27	Whilst the PCBC reflected some evidence of patient and public engagement, there needs to be greater illustration of how patients and public could help co-design future services and treatment environments using ‘experts by experience’ (formerly ‘expert patients').	For engagement plan	n/a
	R28	Clinical engagement to date should be widened and needs to become more inclusive of all stakeholders, clinicians and support staff.	For engagement plan	n/a

Theme	Ref.	Recommendations	Response	PCBC amendments
	R29	Broader stakeholder engagement should be undertaken. This will be important to prioritise including impacted acute units (i.e. St George's, Frimley etc), neighbouring acute providers, local authority, community and primary care. It will be important not to rely on the engagement undertaken to date with regards to the broader IHT programme but to ensure a very tailored and focused approach for the renal proposals.	For engagement plan	n/a
Digital	R30	There is some evidence that proposals and plans are in place with respect to overarching digital strategies, however the PCBC could be strengthened through a more detailed summary that confirms that plans are in place to address the following: • Integrating IT systems: PACS, CB5, Cerner. • Digital information sharing – shared care records, access to primary care records (Surrey). • Operational risks associated with satellite services; what mitigations are proposed? • Shared digital learning – COVID19. • Near patient monitoring. • A description of the use of Renal Patient View.	PCBC amended Noted that further work required at FBC	Section 7.1.1 – section on digital implementation added
Sustainability	R31	There is some evidence that proposals and plans are in place with respect to overarching sustainability strategies, particularly around the new build and zero carbon ambitions. However, additional detail evidencing how the zero carbon ambition will be met, e.g. ways of working/reduced use of disposable would enhance the PCBC overall.	To be addressed in FBC	n/a
	R32	More detail within the sustainability plans to include a proposed model for green nephrology would be beneficial.	To be addressed in FBC	

Theme	Ref.	Recommendations	Response	PCBC amendments
COVID-19	R33	Additional narrative detailing how COVID-19 has altered clinical delivery especially reflections on 'lessons learnt' such as the use of virtual clinics, increase in day case procedures and surgery, digital, working with PCNs, using the KA and flexing of ITU capacity would enhance the current PCBC.	PCBC amended	Section 7.3.1 – detail on COVID-19 added
	R34	It would be helpful to understand what has been done differently with reference to the proposed clinical models and pathways and to understand what should now continue, what requires further adaptation in order to ensure sustainability and what should be stopped for example the discharge integrated hub which is a COVID model.	PCBC amended	As above
The options appraisal process	R35	Whilst it is not the role of clinical senate to make recommendations on option appraisal process issues, the current narrative focuses predominantly on the option to centralise specialised acute inpatient care on the St George's site as a preferred option. A more balanced narrative that outlines the relative challenges and opportunities for all options under consideration would improve the case overall.	Noted To be considered for engagement materials	n/a
Clinical evidence and standards	R36	The current PCBC would be improved through broader reference to the following suggested documents	Noted and amended where relevant	n/a

9.4 Overview and scrutiny

The South West London and Surrey Joint Health Overview and Scrutiny Committee (JHOSC) has reviewed and will continue to review our work as it relates to the planning, provision and operation of health services in their local area. This is set out in legislation in that commissioners must consult the local authority when considering any proposal for a substantial change in health provision. As part of this process, the JHOSC will engage interested parties and take into account relevant information available, including that from local Healthwatch. This therefore enhances public involvement in the commissioning process.

The programme engaged with the JHOSC while work and evidence development progressed. The table below provides an overview of the meetings and items for discussion.

Table 51: Overview and scrutiny committee meetings

Meeting date	Meeting	Item(s) for discussion
March 2021	• IHT Joint sub-committee	• Progress of IHT implementation • Case for change in renal services
7 July 2021	• Joint Overview and Scrutiny Committee	• PCBC and IA • Engagement plan

10 Next steps and recommendation

Within this document, we have:

- Described the process leading to the development of this PCBC
- Articulated the case for change within renal services
- Articulated the process to develop a new clinical model and options to deliver it
- Set out how we have and will continue to engage stakeholders on this clinical model and related process
- Appraised the options, with an outcome that the option to co-locate acute renal services to the SGUH is the strongly preferred option
- Set out the approval processes and regulatory tests relevant to this process

Our recommendation to the Committees in Common is to:

1. **Proceed to seek the support of the JOSC to engage on this proposal**

2. **Engage on the preferred option, specifically with respect to**

    a. **Considerations which may have not been taken into account or afforded sufficient weight in determining the preferred option**

    b. **Noting the weight of the clinical case for change, any mitigations which may be practicable where longer journey times are a consideration**

    c. **Considerations to be taken into account during the design of the detailed clinical pathways and estate for the preferred option**

A decision-making business case will be produced which brings together all the information required by the CCGs' Governing bodies to make their decision on how services may be improved moving forward to any implementation phase.

The three CCGs' and NHS England's Committees in Common will meet to make any decisions, in public, and will consider all of the evidence and the engagement report.

Appendix 1

Summary of current sites providing renal treatment, care and support related to St Helier and St George's hospitals

Location	Type	Service(s) provided
St Helier Hospital (ESTH)	Hospital	1. Full range of renal inpatient services apart from transplantation surgery, including inpatient admissions for complex vascular access surgery. 2. Day case unit for multiple renal procedures, day case surgery, intravenous (IV) infusions, plasma exchange and assessment of acute problems. 3. Haemodialysis unit for local patients on chronic dialysis and management of haemodialysis patients who temporarily need increased care or investigation without admission. 4.Outpatient services: general nephrology clinics; advanced kidney care clinics (including intravenous iron administration); haemodialysis and home haemodialysis clinics; home haemodialysis training. Post-transplant clinics from day five.. Pre-transplant work up clinics. Living donor assessment clinics. Vascular access assessment clinics. Peritoneal dialysis clinics with acute peritoneal dialysis start. Acute outpatient intermittent peritoneal dialysis availability and peritoneal dialysis training. Hypertension clinics; multidisciplinary vasculitis clinic; renal adolescent and transition support clinics Pre-pregnancy renal counselling clinics. Haematology and renal joint clinics. Renal diabetic clinics; ADPK and tolvaptan clinic. Access to renal counsellor. Access to renal dietetic review and clinic.
St Georges Hospital	Hospital	Full range of renal inpatient and day care services including inpatients admissions

		for transplantation surgery and vascular access surgery. multiple renal procedures, day case surgery, iv infusions, plasma exchange and assessment of acute problems Haemodialysis unit for local patients on chronic dialysis and management of haemodialysis patients who temporarily need increased care or investigation without admission Outpatient services: general nephrology clinics; advanced kidney care clinics (including IV iron administration); haemodialysis and PD clinics and; home haemodialysis training. Post-transplant clinics. Pre-transplant work up clinics. Living donor assessment clinics. Vascular access assessment clinics. Peritoneal dialysis clinics with acute peritoneal dialysis start and some acute outpatient intermittent peritoneal dialysis availability and peritoneal dialysis training; Acute Kidney Injury (AKI) clinics, Hypertension clinics. Multidisciplinary vasculitis clinic; Renal adolescent and transition support clinics. Pre-pregnancy renal counselling clinics. Haematology and renal joint clinics, Renal diabetic clinics; Access to renal psychologist. Access to renal dietetic review and clinic.
Frimley Park Hospital	Hospital	1. Renal inpatient services apart from transplantation surgery, complex vascular access surgery and complicated renal procedures 2. Outpatient services including general nephrology and renal pre-pregnancy counselling
Queen Mary Hospital, Roehampton	Hospital	Outpatient clinics for general nephrology, post-transplant patients and renal diabetic clinics

Nelson Health Centre		Outpatient clinics for general nephrology, Post-transplant clinics
Croydon	Hospital	Satellite dialysis with availability of dialysis for stable inpatients. General nephrology clinics, advanced kidney care clinic (including IV iron administration), renal diabetic clinic, HIV and renal clinic,
Kingston Hospital (Kingston Hospital NHS Foundation Trust)	Hospital	Outpatient clinics for general nephrology, AKI clinics, anaemia clinics, acute kidney care clinics, renal diabetic clinics.
Brighton Hospital (Brighton and Sussex University Hospitals NHS Trust)	Hospital	Outpatient clinics – Pre-transplant.
Royal Surrey Hospital (Guildford Surrey)	Hospital	Outpatient clinics for general nephrology, advanced kidney care clinics, peritoneal dialysis clinics, renal and diabetes clinic
Woking Community Hospital	Ashford and St Peter's Hospital related site	Outpatient clinics for general nephrology and advanced kidney care clinics
East Surrey	Hospital	Outpatient clinics for general nephrology
Epsom (ESTH)	Hospital	Outpatient clinics for general nephrology
Leatherhead		Outpatient clinic for general nephrology
Aldershot Health Centre	Frimley Park Hospital related site	Outpatient clinics for general nephrology and advanced kidney care
Fleet Community Hospital	Frimley Park Hospital related site	Outpatient clinics for general nephrology
Crawley	Satellite Unit	Satellite dialysis, haemodialysis clinics and advanced kidney care clinic
Sutton	Satellite Unit	Haemodialysis and haemodialysis clinics

Farnborough	Satellite Unit	Haemodialysis, haemodialysis clinics and advance kidney care clinics
Epsom	Satellite Unit	Haemodialysis and haemodialysis clinics
West Byfleet	Satellite Unit	Haemodialysis and haemodialysis clinics
Manor Gate site	Satellite unit	Dialysis
Colliers Wood	Satellite unit	Haemodialysis and haemodialysis clinics
North Wandsworth	Satellite unit	haemodialysis and haemodialysis clinics.

Renal (kidney) services explained.

Common conditions

Chronic kidney disease (CKD). This means that the kidneys do not work as well as they should. They are unable to remove waste products from your body. Damage to the kidney's filter system can also allow blood and protein to leak into the urine.

The term 'chronic' means that it is a long-term condition. It does not necessarily mean kidney damage is severe. Many cases of CKD are mild and can be managed with help from a GP and without hospital involvement.

10.1 **Kidney failure**. Around 10% of people with CKD may reach a stage known as established renal failure. This is when the kidneys can no longer work well enough to keep us healthy and alive, and support from dialysis treatment or a kidney transplant is considered.

10.2 **Nephrotic syndrome** is caused by loss of protein through the kidneys leading to low protein levels in the blood.

10.3 **Acute kidney injury** (AKI) is a sudden loss of kidney function that develops within a few days.

Vasculitis is an autoimmune disease that causes inflammation and narrowing of blood vessels (arteries, veins and capillaries). These vessels carry blood to and from the heart and the body's organs. In severe cases, the condition can cause organ damage or death.

10.4 **Autosomal dominant polycystic kidney disease** (ADPKD) is an inherited condition that causes small fluid-filled sacs called cysts to develop in the kidneys. Kidney function will gradually deteriorate until so much is lost that kidney failure occurs.

10.5

Common treatment

Haemodialysis

Haemodialysis involves taking blood out of a patient and cleaning it through a haemodialysis machine before returning the blood back to the patient. This can be performed in the hospital, at satellite/community clinics or at home.

Peritoneal dialysis

Peritoneal dialysis, (also known as continuous ambulatory peritoneal dialysis or CAPD) involves using the patient's peritoneum (abdomen lining) as a dialysis membrane, and the dialysis takes place within the patient's body, instead of through a dialysis machine. This technique can be carried out in patients' homes.

Transplantation

Kidney transplant is the organ transplant of a kidney into a patient with end-stage kidney disease.

Vascular access

Patients requiring haemodialysis require a means of connecting to the haemodialysis machine. While short term use of dialysis lines can be used the best practice for the majority of patients is to have an arteriovenous (AV) fistula or graft created. This is performed by highly specialised vascular surgeons.

An AV fistula is a direct connection between the patient's artery and one of their nearby veins. An AV graft (sometimes called a bridge graft) is an indirect connection between the artery and vein. A plastic tube is most common, but donated arteries or veins can also be used.

[BACK PAGE]