

Consultant geriatrician input in the multimorbidity model of care (MMMoC)

Phase II evaluation report

Prepared by the MMMoC evaluation working group

We are a partnership of NHS commissioners and providers, the boroughs of Bexley, Bromley, Greenwich, Lambeth, Lewisham and Southwark and the voluntary and community sector



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Executive summary

Background

The multimorbidity model of care (MMMoC) in South East London (SEL) was developed to shift healthcare delivery from reactive, hospital-based care to proactive, person-centred care delivered closer to home for people living with chronic kidney disease (CKD) and multiple long-term conditions (mLTCs). The population with advanced CKD is increasingly older, frailer and living with complex multimorbidity, making treatment decisions, particularly between dialysis and supportive care, more complex. Existing renal services often lack capacity for holistic assessment and specialist frailty expertise, creating a need for integrated geriatrician input.

Ambition of the work and its evaluation

The ambition of the consultant geriatrician input within the MMMoC is to improve quality of life for people with advanced CKD by embedding comprehensive geriatric assessments (CGA), strengthening shared decision-making (SDM), and aligning care with what matters most to service users. The evaluation aimed to assess the impact of this model on treatment decision-making, identification of unmet need, advance care planning (ACP), and healthcare utilisation, as well as its contribution to a more coordinated and sustainable system.

Describing the intervention

Consultant geriatricians were embedded within Advanced Kidney Care Clinics (AKCC) at Guy's and St Thomas' NHS Foundation Trust (GSTT) and King's College Hospital NHS Foundation Trust (KCH), for eight hours a week (two programmed activities) providing dedicated clinical sessions to support older and frail service users with advanced CKD. The intervention focused on delivering CGA, supporting SDM and facilitating ACP, working collaboratively with renal teams. It aimed to improve understanding of prognosis, identify unmet frailty-related needs, and support informed decisions about dialysis and supportive care.

Method of evaluation

The evaluation analysed clinical and demographic data for service users seen in AKCCs, alongside early indicators of healthcare utilisation in the last year of life. Data included frailty measures, treatment decisions before and after geriatrician input, CGA findings, ACP completion, and hospital admissions and bed days. Descriptive analysis was used to assess changes in care and outcomes.

Results

A total of 129 service users were seen, characterised by older age, high levels of frailty and multimorbidity. Geriatrician input led to a significant shift in treatment decisions, with 74% of service users choosing supportive care following CGA and SDM, compared to 5% prior to intervention. CGA identified substantial unmet need, including new diagnoses of cognitive impairment in around 30% of service users, alongside other frailty-related conditions, medication optimisation and referrals to wider services. Geriatricians also supported complex decision-making, including family involvement and best-interest decisions where capacity was impaired. ACP completion improved, supporting more proactive care planning. Early findings indicate that supportive care



pathways were associated with fewer hospital admissions and bed days compared to dialysis, although these findings were not statistically significant due to a small sample size.

Conclusion

Embedding consultant geriatrician input within AKCCs improves holistic, person-centred care for older people with advanced CKD by strengthening CGA, SDM and ACP. It enables more informed treatment decisions, better identification of unmet need, and improved alignment between care and service user priorities. The observed shift towards supportive care pathways and early indications of reduced hospital utilisation suggest potential benefits for both service users and the wider system, including improved quality of life and more sustainable use of NHS resources. This model represents a key enabler of the MMMoC and supports wider system ambitions to deliver integrated, proactive care for an ageing population with increasing complexity.



Structure of the MMMoC

This diagram illustrates the structure of the South East London (SEL) MMMoC from the perspective of the subsequent evaluation and can be used to support understanding throughout. This report focuses on the consultant geriatrician input element of the work, as highlighted by the red box.

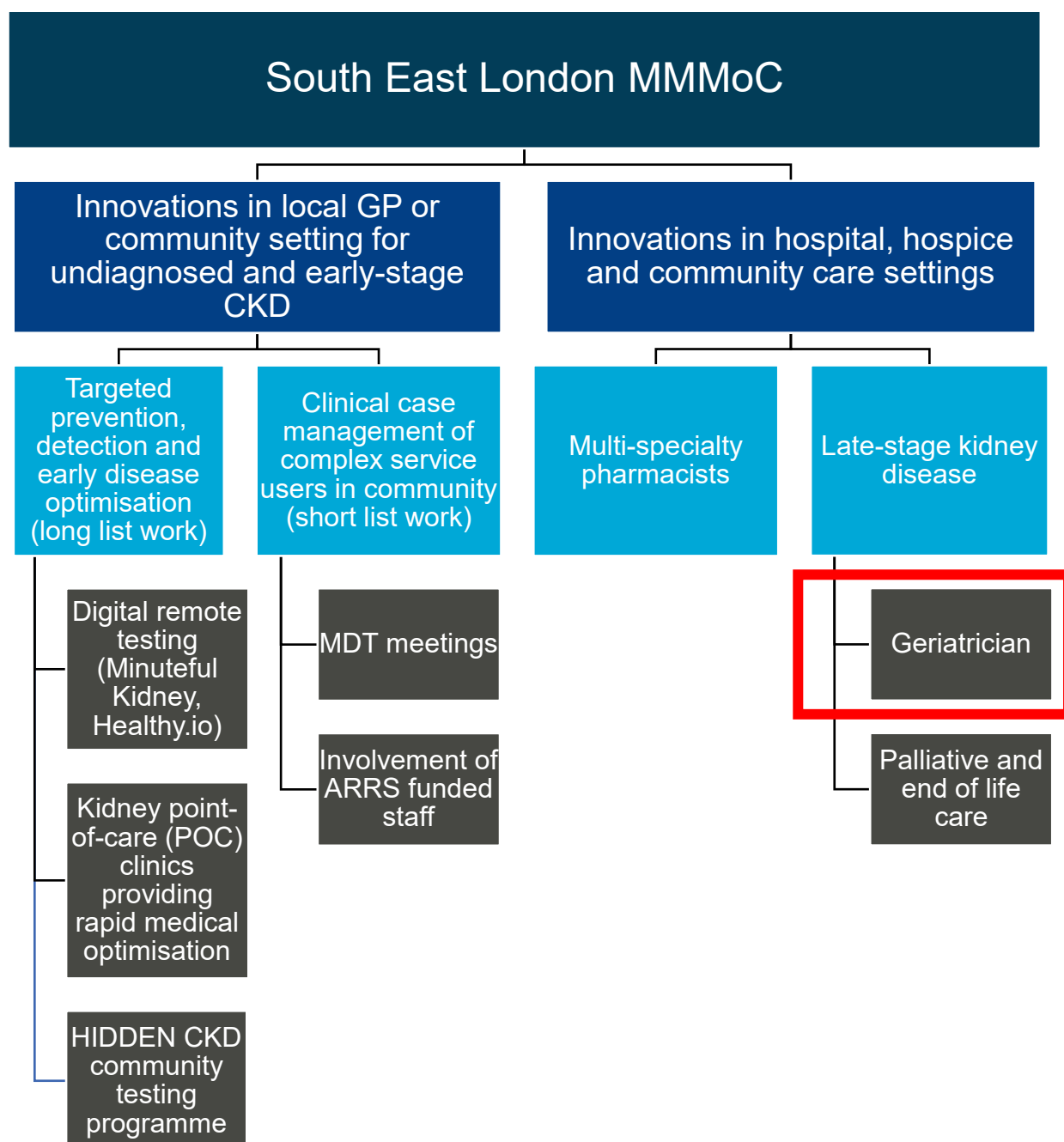


Figure 1: Structure of the multimorbidity model of care (MMMoC)

Chapter 1. Introduction and background

Aligned with the 10-year health plan for England [1], the multimorbidity model of care (MMMoC) was established to support a fundamental shift in healthcare delivery, from hospital to community, and from reactive treatment to prevention. The proposed Neighbourhood Health Service provides the strategic framework for delivering this change, with Integrated Neighbourhood Teams (INTs) acting as the proactive mechanism to improve access, reduce health inequalities, and enhance outcomes for people living with multiple long-term conditions (mLTCs). Within this context, the MMMoC aims to deliver coordinated, person-centred care for individuals with complex health needs across South East London (SEL).

Chronic kidney disease (CKD) is a historically overlooked condition – it is known as a “silent killer” [2] that in its early stages often remains unnoticed and poorly understood by service users. As a condition, deterioration of kidney function does not act in isolation. CKD is part of a cluster of conditions, acting as a risk factor for cardiovascular events [3] and cardiovascular disease [4]. Meanwhile, in the UK, diabetes and hypertension are the leading causes of CKD [5], and yet CKD remains under-detected in these groups, especially among people with hypertension [6]. Whilst CKD is clearly part of a cardiorenal metabolic (CRM) cluster, care for these various conditions is often siloed which further exacerbates the issue of undetected CKD alongside increased risk factors for interconnected events [7]. Whilst we have medications (e.g. ACE-I/ARB, SGLT2i) that, once optimised, may delay progression to end-stage kidney disease in some service users by up to 15 years [8], a significant proportion of our CKD population require regular reviews and medicines optimisation [9].

The population reaching advanced CKD is increasingly older, frailer and living with multiple coexisting conditions, including cardiometabolic diseases, cognitive impairment and frailty syndromes such as falls, incontinence and functional decline. A growing body of literature highlights that frailty is highly prevalent among older adults with advanced CKD and that optimal management requires a multidisciplinary approach centred on shared decision-making (SDM), aligning treatment pathways with service user preferences and wider health needs [10]. For this group, decision-making regarding treatment, particularly the choice between dialysis and supportive care, is complex.

In 2023, modelling of in-centre haemodialysis growth in London demonstrated that demand is expected to exceed capacity by 2030, highlighting that making the right treatment decisions is critical for both service users and system sustainability [11]. Work to reduce the numbers of people progressing to advanced CKD, alongside improving access to alternative dialysis options, is therefore vital.

While dialysis is a life-sustaining intervention, it replaces only kidney function and does not address the broader impacts of multimorbidity or frailty. Evidence suggests that in older adults, particularly those over 75 years and those with significant comorbidity, dialysis may offer limited or no survival benefit [12–14] and may be associated with substantial treatment burden. In contrast, supportive care approaches may better align with service user priorities, including maintaining independence and quality of life, with



evidence suggesting benefits in quality of life, symptom burden and reduced hospitalisation [15].

However, existing renal services are not always optimally configured to support these sensitive decisions. Service users may receive information framed in binary terms, and some report feeling they have limited choice when approaching late-stage kidney disease. Evidence from a recent conversation analysis study demonstrates that the framing of treatment options significantly influences service user engagement, with conservative kidney management often positioned as a secondary option to dialysis, limiting opportunities for meaningful SDM [16]. There is also evidence of decision regret following initiation of renal replacement therapy (RRT), alongside unmet needs relating to quality of life, symptom burden and long-term planning, with studies showing service users would have valued greater discussion around quality of life and end-of-life care prior to starting dialysis [17]. These challenges are compounded by limited access within renal teams to specialist expertise in frailty, cognition and holistic care.

Geriatricians bring a distinct and complementary skillset to this context. Through comprehensive geriatric assessments (CGA), they can identify and address frailty, cognitive impairment and other geriatric syndromes, while also supporting SDM that reflects what matters most to the individual. Within the MMMoC, geriatricians were embedded into Advanced Kidney Care Clinics (AKCCs), with protected time to undertake extended consultations. This enabled more in-depth exploration of service user priorities, improved understanding of prognosis, and facilitated access to broader services and support. Importantly, this model supports both enhanced supportive care as an alternative to dialysis and enhanced supportive care alongside dialysis, recognising that both approaches are critical components of high-quality care.

As disease progresses, proactive care planning becomes increasingly important. Advance care planning (ACP) enables individuals to express preferences and supports meaningful discussions with families and professionals. Many service users prioritise quality of life over life extension [18], yet ACP is often introduced too late [19]. Earlier integration supports better alignment between care, preferences and outcomes, including place of care and death.

This evaluation examines the role of consultant geriatrician input within Advanced Kidney Care Clinics (AKCCs) as part of the MMMoC, focusing on its contribution to improving decision-making, identifying unmet need, and supporting more person-centred, holistic care for a frail and multimorbid population with advanced kidney disease. By situating geriatric expertise within an integrated, neighbourhood-based model, this work seeks to demonstrate how care can be better aligned with the complex realities of ageing and multimorbidity, while also delivering benefits for service users, clinicians and the wider health system.

For this report, any relevant definitions and abbreviations are included in the glossary in Chapter 13.



Chapter 2. Ambition of the work

2.1 Ambition of the MMMoC overall

Overall, the MMMoC aimed to **build a person-centred, holistic, and fully integrated model of care for people living with mLTCs across the renal care pathway in SEL.** The model sought to strengthen both horizontal integration (within care settings e.g. across specialties and roles) and vertical integration (across primary, secondary and community care), improving coordination, access and outcomes for service users with complex needs. The various interconnected areas, as described in Figure 1, functioned collaboratively to deliver effective and equitable care for service users, improve clinical and non-clinical staff experience and collaboration, and build efficiency into the system overall.

2.2 Ambition of the consultant geriatrician input branch of the work

The ambition of the consultant geriatrician input in the MMMoC can be defined at three levels:

For service users to:

- Feel seen, heard and supported as a whole person, with care shaped by what matters most to them in the context of frailty, multimorbidity and advanced kidney disease
- Have earlier access to holistic assessment, mainly CGAs, to better understand their overall health, frailty, cognition and prognosis
- Be supported to make informed decisions about treatment pathways, including dialysis and supportive care, with a clear understanding of the potential impact on independence, quality of life and outcomes
- Experience more meaningful SDM alongside clinicians and families, particularly in complex or uncertain situations
- Have greater opportunity to express their preferences, with ACP that reflects their wishes and is respected across care settings

For the multidisciplinary staff (clinical and non-clinical) to:

- Feel more confident and supported in managing frailty, multimorbidity and complexity through access to consultant geriatrician expertise
- Work more collaboratively across renal, geriatric, community and palliative care teams to support coordinated, person-centred care
- Improve recognition and management of geriatric syndromes (e.g. frailty, cognitive impairment, falls, polypharmacy) alongside renal care
- Be better equipped to involve families, assess capacity and support best-interest decision-making for complex service users

For the system overall to:

- Enable earlier and more equitable access to specialist geriatrician input for older people living with advanced kidney disease, frailty and complex multimorbidity



- Reduce fragmented, reactive and crisis-driven care by embedding proactive, holistic assessment and SDM within pathways
- Improve alignment between treatment decisions, service user preferences and outcomes, including more appropriate use of supportive care alongside or instead of dialysis
- Support more appropriate use of NHS resources by reducing avoidable admissions, bed days and high-burden interventions that may not provide benefit to individuals
- Strengthen integration between renal, frailty, community and end-of-life care within the MMMoC
- Support the NHS 10 Year Plan 'left shift' by enabling more proactive, community-focused care for people with complex needs



Chapter 3. Describing the intervention

3.1 The MMMoC overall

The interventions implemented as part of the MMMoC span innovations in local GP or community settings for service users with undiagnosed and early-stage CKD as well as innovations in hospital, hospice and community care settings for those with late-stage CKD. The work took place at various locations across SEL, a diverse and relatively deprived population with over two million residents. Each element of the MMMoC, as reflected in Figure 1, took an integrated approach to service-user care. Across all elements, there was horizontal and vertical collaboration to ensure a service-user-centric approach that engaged with the whole person, their priorities and needs. In addition, population health data was used in each instance to ensure care was proactive, preventative of disease progression and worked to reduce inequalities. A comprehensive list of the stakeholder organisations involved in the MMMoC can be found in Appendix 1 and includes primary care networks, hospital trusts, hospices, clinical effectiveness groups and numerous other local organisations.

3.2 The consultant geriatrician input branch of the work

Geriatricians worked alongside renal teams to assess a targeted cohort of higher-risk service users, including those:

- Over 60 years old with a Clinical Frailty Score (CFS) above 5 (inclusive) or those aged over 80 regardless of frailty score
- With suspected cognitive impairment affecting their ability to make informed treatment decisions
- Where service user or family expectations of treatment or prognosis were considered unrealistic based on clinical judgement

Within SEL, the MMMoC supported the inclusion of eight hours a week (2 programmed activities (PAs)) of consultant geriatrician expertise within AKCCs at each of Guy's and St Thomas' NHS Foundation Trust (GSTT) and King's College Hospital NHS Foundation Trust (KCH). This enabled routine ACP discussions to take place for service users with less than 20% kidney function remaining. The intervention is based on the established Proactive Care of Older People undergoing Surgery model, originally developed at GSTT [20].

Involving geriatricians in this way aimed to improve SDM for frailer older service users and ensure treatment decisions were based on "what matters to the patient". Geriatrician-led CGAs could lead to identification and treatment for previously unrecognised frailty-related conditions regardless of chosen care pathway, improvement of ACP, and enabling more appropriate use of supportive care, dialysis and inpatient resources, particularly in the last year of life. Service users and their families were given the tools to better understand the likely impact of dialysis on their quality of life and could use this to inform decision-making.



Chapter 4. Key areas for evaluation

This evaluation seeks to assess the impact of embedded geriatrician input within AKCCs as part of the MMMoC and to understand its contribution to improving quality of care, decision-making and system sustainability for an older, frail population with advanced kidney disease.

The key areas of the evaluation are to:

- Understand the characteristics and level of frailty, multi-morbidity and cognitive impairment within the AKCC cohort targeted for geriatrician input.
- Assess how geriatrician-led CGAs and SDM influence treatment decision-making, particularly choices between dialysis and supportive care that align with service user values, preferences and priorities.
- Examine the added value of geriatrician input in identifying and addressing previously unmet or unrecognised frailty-related needs beyond renal care alone.
- Assess the role of geriatricians in supporting family involvement, capacity assessment and best-interest decision-making for service users with impaired decision-making ability.
- Evaluate the impact of geriatrician input on ACP, do not attempt cardiopulmonary resuscitation (DNACPR), Universal Care Plans (UCPs) and wider care coordination across settings.
- Explore early indications of the impact on healthcare utilisation, including hospital admissions, bed days and patterns of care in the last year of life.



Chapter 5. Methodology of the evaluation

Geriatrician input was evaluated from two perspectives: firstly, through consideration of the clinical outcomes of all service users seen at GSTT and KCH by their geriatrician in the AKCCs; and secondly through consideration of the impact made on resource utilisation by service users in the final year of their lives.

In terms of clinical outcomes, clinical and demographic data were collected from service users seen in the AKCCs from June 2024 – November 2025 (GSTT – 17 months) and October 2023 – October 2024 (KCH – 12 months). Data included:

- Service user demographics, age, sex, ethnicity, and frailty scores
- Treatment decisions prior to and following geriatrician review, including dialysis versus supportive care pathways
- CGA outputs, such as new diagnoses of cognitive impairment or dementia, falls risk, polypharmacy, anticholinergic burden, and other frailty syndromes
- ACP and DNACPR documentation
- Clinical follow-up outcomes, including service user deaths and place of death

Clinical outcomes were analysed descriptively, reporting on counts and proportions of service users with new diagnoses, treatment pathway changes, ACP completion, and involvement of family or representatives. Treatment decision changes (before versus after geriatrician review) were summarised using pre- and post-intervention counts for dialysis, supportive care, and undecided pathways.

Meanwhile, to assess the impact of geriatrician input on healthcare resource utilisation, the following data were collected and analysed from the subset of service users who died in a 6-month period (1 March 2025 – 31 August 2025) across all of the modalities:

- Inpatient admissions and total bed days in the last year of life, stratified by supportive care versus dialysis pathways
- Timing and completion of ACP in relation to hospital admissions and death

High level descriptive analysis of resource utilisation was undertaken comparing inpatient admissions and total bed days in the last year of life between service users on supportive care and dialysis pathways, and by examining the effect of ACP completion on these metrics. Findings were also tested for statistical significance.

There are some limitations to consider when interpreting the findings relating to geriatrician input in this evaluation. Data from KCH and GSTT were collected over different time periods, which limits direct comparability between sites. Data at KCH were collected over a 12-month period from October 2023 to October 2024; geriatrician capacity ended in October 2024 due to maternity leave, and no further data were collected beyond this point. In contrast, geriatrician input at GSTT was delivered over a longer period from June 2024 to November 2025, which may contribute to differences observed between sites. Reduced geriatrician input at KCH may also have influenced healthcare resource utilisation findings. Finally, while associations are observed between geriatrician input, treatment decisions and patterns of healthcare utilisation,



this evaluation is observational in nature and cannot establish causality, and findings should therefore be interpreted appropriately.



Chapter 6. Results

Service user cohort

The first innovation of the geriatricians was to collect and analyse data on the service users seen at the AKCCs at both GSTT and KCH. A total of 74 service users at GSTT and 55 service users at KCH were seen at the clinics at least once. The cohorts were characterised by older age, multimorbidity and high levels of frailty:

- At KCH, 64% of service users were aged 80 years and over, and 47% had a Rockwood Clinical Frailty Score¹ (CFS) ≥ 6 , indicating moderate to severe frailty.
- At GSTT, 68% of service users were aged over 80 years, with a wider distribution of frailty scores, including a substantial proportion of 62% with a CFS ≥ 5 .

These findings highlight the complex nature of the AKCC cohort which in turn requires informed and SDM in the context of kidney care.

Treatment decisions

Geriatrician input in AKCCs was associated with a shift in treatment decisions away from RRT, including haemodialysis, and towards supportive care options. At GSTT, of the 74 service users seen by a geriatrician, 48 made a new choice for supportive care (from 5 to 53 service users) compared to a previous preference for haemodialysis or an undecided position. Meanwhile, at KCH, there was a similar shift in treatment decisions observed following geriatrician support. Of the 55 service users, 41 made a new choice for supportive care.

Table 1: Number of service users choosing RRT, supportive care and uncertain before and after CGA and SDM with geriatrician

Treatment intention	Before CGA and SDM			After CGA and SDM		
Trust	GSTT	KCH	Total	GSTT	KCH	Total
RRT	49 (66%)	15 (27%)	64 (50%)	8 (11%)	2 (4%)	10 (8%)
Supportive care	5 (7%)	1 (2%)	6 (5%)	53 (72%)	42 (76%)	95 (74%)
Uncertain	20 (27%)	25 (46%)	45 (35%)	13 (18%)	11 (20%)	24 (19%)
Total	74	55	129	74	55	129

*KCH 'before' data does not include 14 new service users (25% of the 'before' population) so as not to skew the 'uncertain' cohort

Overall, following a geriatrician-led CGA and SDM, 74% of service users (a total of 95 individuals) chose a supportive care pathway compared with 8% choosing RRT (including dialysis). This represents a meaningful shift away from dialysis pathways, often the default, for service users unlikely to benefit from this mode of care.

CGA outputs

¹ https://www.england.nhs.uk/south/wp-content/uploads/sites/6/2022/02/rockwood-frailty-scale_.pdf



Geriatrician-led CGAs resulted in identification and treatment for undiagnosed frailty-related conditions. At GSTT, of the 74 service users, numerous new diagnoses were made, including 31% new diagnoses of cognitive impairment, requiring further assessment. Other diagnoses made included COPD, lymphoedema, skin infections, incontinence, higher level gait disorders and movement disorders.

At KCH, among the 55 service users, 29% received a new diagnosis of dementia or mild cognitive impairment, in addition to 9% where this was already known. Approximately, 50% of service users received medication optimisation for non-CKD conditions. 47% were also referred to additional frailty-related services, including memory clinics, social services, integrated therapies and community palliative care.

These findings indicate that CGAs add significant value beyond treatment decision-making, but also improving holistic care and symptom management, for otherwise undiagnosed conditions.

Role of family or service user representative involvement and best-interest decision-making

Geriatrician involvement at KCH played a critical role in supporting complex decision-making where service users lacked capacity or required additional support:

- In 84% of cases, family members or service user representatives were actively involved or contacted by the geriatrician as part of the decision-making process.
- 29% of service users required a formal best-interest decision due to impaired capacity.
- Of these, 94% of best-interest decisions were completed by the geriatrician, with the remaining cases appropriately pending referral to an Independent Mental Capacity Advocate.

This highlights the specialist role of geriatricians in navigating capacity assessments, family engagement and legal frameworks, ensuring that decisions are carefully thought through and centred on the service user's best interests. Equivalent data was not collected at GSTT.

Documentation

At KCH, DNACPR decisions were agreed with 64% of service users, and an ACP completed for 62% of service users who were offered it. At GSTT, a UCP was initiated or completed for approximately 41% of service users, with a further 32% awaiting completion.

There were barriers at GSTT that led to a lack of ACP completion, including limited clinician time, availability of private space and challenges involving families.

Clinical follow-up outcomes and place of death

At GSTT, 13 deaths occurred during follow-up:



- Seven service users died at home with community palliative support
- Five died during acute hospital admissions with DNACPR decisions in place and palliative care involvement
- One service user died in hospital without DNACPR or palliative input.

Most of the deaths occurred among service users on a supportive care pathway, suggesting improved alignment between treatment decisions, place of death and service user preferences. Equivalent data was not collected at KCH.

Resource utilisation

Early findings suggest that choosing supportive care over haemodialysis can reduce the number of admissions and bed days that service users experience in their last year of life, however this difference has not yet reached statistical significance. Given the short audit period, further work to observe a larger cohort of service users would perhaps enable the achievement of statistical significance and confidence in the impact of geriatrician input on healthcare utilisation. From these early findings, we can see that supportive care service users averaged 1.3 admissions and 11.2 bed days, compared with 2.6 admissions and 31.5 bed days for haemodialysis service users.

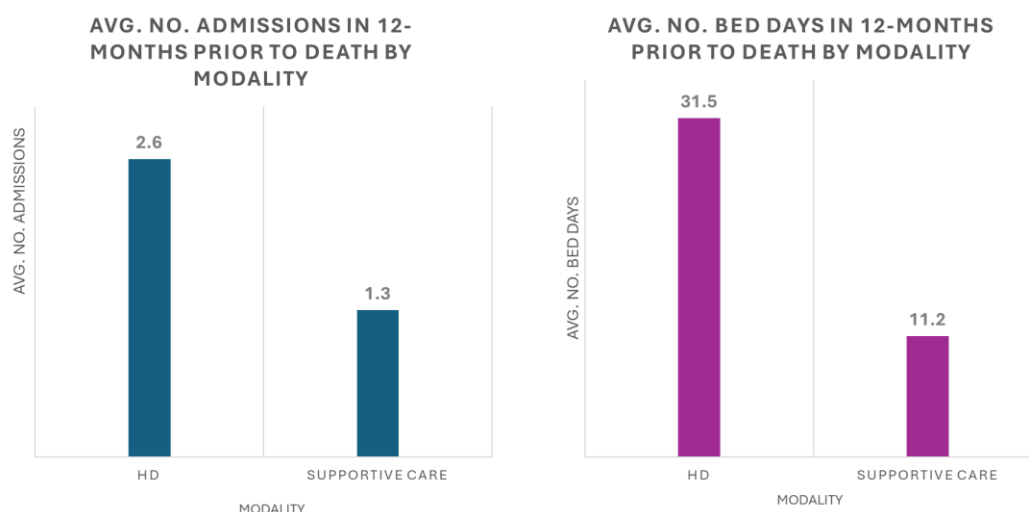


Figure 2: A graph showing the average number of admissions and bed days in 12-months prior to death by modality at GSTT and KCH.

In addition, initiation or completion of ACP was associated with lower admissions and bed days, regardless of treatment modality, although these results are not statistically significant also due to the small cohort size. From these early findings, you can see that service users who started or completed an ACP averaged 1.6 admissions and 15.1 bed days, compared to service users without an ACP who averaged 2.5 admissions and 34.8 bed days in the last year of life. As mentioned above, further work would need to be carried out to robustly prove the link between the initiation or completion of ACPs and hospital utilisation in the last year of life.

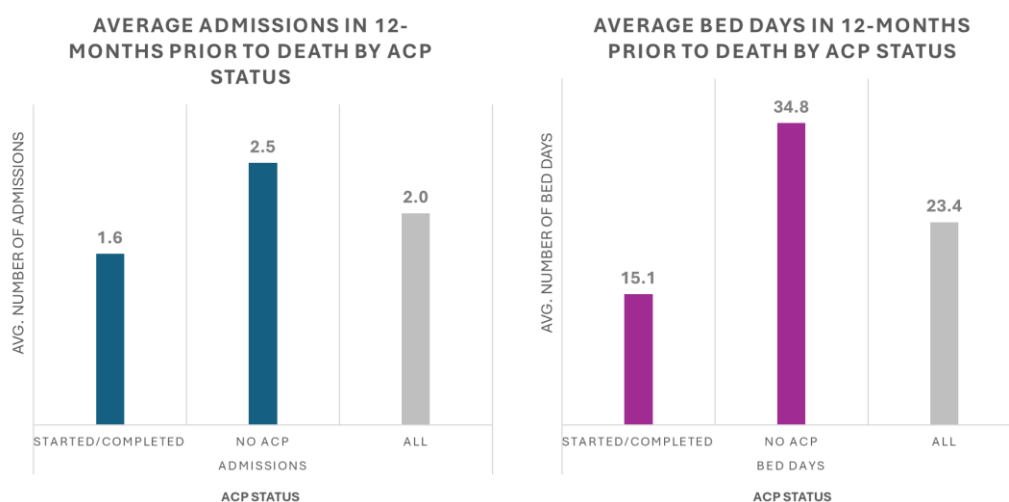


Figure 3: A graph showing the average number of admissions and bed days in 12-months prior to death by ACP status at GSTT and KCH.

Chapter 7. Discussion

This evaluation demonstrates that embedding consultant geriatrician input within AKCCs provides targeted, specialist support for an older, frail and multi-morbid population approaching advanced kidney failure. Geriatrician-led CGA and SDM strengthened holistic, person-centred care and ensured that complex treatment decisions were better aligned with service user priorities.

Across both sites, 129 service users were reviewed, the majority of whom were aged over 80 and living with moderate to severe frailty, highlighting the complexity of this cohort. Geriatrician input was associated with a substantial shift in treatment decisions, with 74% of service users choosing a supportive care pathway following CGA and SDM, compared to only 5% prior to intervention.

These findings are particularly relevant given the growing population of older people with advanced CKD, for whom frailty and multimorbidity make decision-making more complex and reduce the potential benefit of dialysis. The marked shift towards supportive care pathways highlights the importance of providing time, specialist input and balanced information to support decisions that reflect quality of life and individual priorities. This is consistent with existing evidence that dialysis may offer limited or no survival benefit and significant treatment burden for older, frail individuals [12–14], while supportive care approaches may improve quality of life and reduce hospitalisation [15].

Geriatrician input also identified substantial unmet need, including previously unrecognised cognitive impairment (affecting around 30% of service users) and other frailty-related conditions, as well as medication optimisation and referral to wider services. This demonstrates the value of integrating geriatric expertise within specialty pathways, extending beyond treatment decisions to holistic care. The role also included supporting family involvement in 84% of cases and best-interest decision-making where capacity was impaired, addressing recognised challenges in SDM and communication in this population [10,16].

Crucially, the shift away from dialysis where it is unlikely to provide meaningful benefit represents both a service user and system-level gain. For service users, avoiding dialysis can reduce treatment burden and preserve independence and quality of life, aligning care more closely with individual preferences, which is consistent with evidence that many service users prioritise quality of life over life-extending treatment [18]. At a system level, reduced reliance on dialysis, an intensive and costly intervention, alongside fewer hospital admissions and bed days in the last year of life (with supportive care patients averaging 1.3 admissions and 11.2 bed days compared to 2.6 admissions and 31.5 bed days for dialysis), suggests potential efficiency savings and more sustainable use of NHS resources.

Dialysis is associated with significant annual costs to the NHS, estimated to range from approximately £17,700 to £70,856 per patient depending on modality, service configuration and associated inpatient and GP-related costs [21], including procedures such as arteriovenous fistula formation. These costs are often particularly high for the geriatric cohort. Arteriovenous fistula formation is a common procedure required to



support dialysis treatment, and can be complex or lead to repeat procedures. When supportive care is selected in line with service user preference and clinical needs, this intervention may be avoided, reducing demand on surgical services and waiting lists, contributing to wider system-level benefits. Transport represents a further significant cost, especially for an older and frailer population, who often require ambulance transport for regular dialysis (typically three times a week), usually involving two staff members to support travel to and from appointments. Where ambulance transport is required, this is estimated to cost at least an additional £8,941 per patient per year [22]. This indicates that avoiding or delaying dialysis, where clinically appropriate, contributes to substantial system-level savings. This is particularly important in the context of rising demand for RRT, with dialysis capacity projected to be exceeded by 2030 [11].

Early findings that ACP was associated with lower admissions, and bed days further reinforce the value of proactive, person-centred care approaches, aligning with wider evidence that earlier ACP can improve alignment of care with preferences and reduce unwanted interventions [19]. These results are also consistent with broader literature demonstrating improved outcomes and reduced hospital utilisation for older people managed with supportive care pathways [15].

A strength of this evaluation is its real-world implementation across two large NHS trusts, combining detailed clinical outcomes with early system utilisation data and demonstrating the practical application of geriatrician input within an integrated care model. However, the evaluation is observational, with relatively small sample sizes and variation in data collection across sites, which limits comparability and the ability to draw causal conclusions.

Overall, this work contributes to the evidence base for integrating geriatric expertise into specialty care pathways and demonstrates how holistic assessment and SDM can improve alignment between treatment, preferences and outcomes. It also highlights the potential for improved quality of life for service users and more sustainable use of healthcare resources, supporting wider system ambitions to deliver proactive, person-centred care for an ageing population with increasing complexity.



Chapter 8. Next steps

Building on the findings of this evaluation and the wider comprehensive evaluation of the MMMoC, the following next steps are proposed to support sustainability, scale and system learning:

1. Secure funding to continue and embed consultant geriatrician input within AKCCs recognising the impact of CGAs and specialist expertise on decision-making, care planning and holistic outcomes.
2. Explore opportunities to expand the model of embedded geriatrician input to other pathways and specialties managing older people with frailty and multimorbidity, supporting a more consistent, system-wide approach to holistic assessment and SDM.
3. Strengthen integration with neighbourhood-level working by aligning geriatrician input with INTs, enabling more proactive, coordinated and locally responsive care for people living with complex needs.
4. Sustain and further develop multidisciplinary working, continuing collaboration between renal, geriatric, community, primary care and palliative care teams to support coordinated care, shared responsibility for decision-making and improved continuity across settings.
5. Embed CGAs and SDM as routine components of care for frail service users with advanced kidney disease, ensuring earlier identification of unmet needs, improved recognition of frailty syndromes and more personalised care planning.
6. Continue to strengthen ACP, capacity assessment and family involvement processes, recognising the role of geriatricians in supporting complex and best interest decision-making for service users with cognitive impairment or reduced capacity.
7. Embed ongoing data collection, evaluation and shared learning within system improvement structures, with future evaluation using larger cohorts and longer follow-up to better understand impacts on treatment decisions, quality of life and healthcare utilisation.



Chapter 9. Conclusion

This evaluation demonstrates that embedding consultant geriatrician input within AKCCs is a valuable component of the MMMoC for an older, frail population with advanced CKD. By introducing CGA and specialist expertise in frailty, cognition and holistic care, the intervention strengthens SDM and ensures that treatment choices are better aligned with what matters most to service users. Geriatrician involvement has shown clear benefits in identifying previously unmet needs, improving ACP, and enabling more informed decisions between dialysis and supportive care. The observed shift towards supportive care pathways highlights the importance of providing service users and families with the time, information and support needed to make decisions that reflect their priorities, quality of life and overall health status. Early findings also suggest potential system-wide benefits, including more appropriate use of healthcare resources and reduced hospital utilisation in the last year of life, although further evaluation is required to confirm these impacts at scale. Overall, consultant geriatrician input represents a key enabler of more person-centred, coordinated and sustainable care, supporting both improved experiences and outcomes for service users and more effective use of NHS resources within the MMMoC.



Chapter 10. Acknowledgements

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Chapter 12. Appendices

Appendix 1. List of stakeholder organisations involved in the MMMoC

Clinical Effectiveness South East London
Crossman Connections Ltd
Crosspath Consulting Ltd
Guy's and St Thomas' NHS Foundation Trust
King's College Hospital NHS Foundation Trust
Kings College London
Kings Health Partners
Ladywell Pharmacy
Lewisham and Greenwich NHS Foundation Trust
London Kidney Network
NHS England
Primary Care Networks across South East London: Albion, Lyndhurst and Plas
Meddyg; Clocktower; Heritage; Hills, Brook and Dales; Improving Health Limited;
Mottingham, Downham and Chislehurst; North Lambeth and Clapham;
Orpington; Penge; Quay Health Solutions; The Lewisham Care Partnership
Queen Mary's APL-Renal Risk Stratification Tool
South East London Integrated Care System
South East London Workforce Development Hub
South London Office of Specialised Services
South London Health Innovation Network
St Christopher's
The Community Hospice
Universal Care Plan
Vital 5



Chapter 13. Glossary

The following definitions and abbreviations are key for understanding the contents of this report:

Term	Full term	Definition
ACEi	Angiotensin-converting enzyme inhibitors	Blood pressure lowering medication that prevents an enzyme from making angiotensin 2, a hormone that narrows blood vessels and raises blood pressure. They help to protect kidney function and treat heart failure.
ACP	Advanced care plan	A voluntary, person-centred process to record an individual's values, preferences and intentions for future medical care.
AKCC	Advanced kidney care clinic	Specialised service for service users with late stage (eGFR <20 ml/min/1.73m ²) kidney disease.
ARB	Angiotensin receptor blockers	Blood pressure lowering medication that blocks the action of angiotensin 2, a hormone that narrows blood vessels and raises blood pressure. They help to protect kidney function and treat heart failure.
ARRS	Additional roles reimbursement scheme	NHS England funding scheme to expand the primary care workforce by providing recurrent funding for specific multi-disciplinary roles at PCN and practice level.
CFS	Clinical frailty scale	A nine-point judgment-based tool used by healthcare professionals to summarise the overall level of fitness or frailty in adults aged 65 and above.
CGA	Comprehensive geriatric assessment	A multidisciplinary assessment of medical, psychosocial, functional and social capabilities and needs of frailer older adults.
CKD	Chronic kidney disease	A chronic condition where the kidneys cannot effectively filter waste and excess fluid from the blood. It can lead to kidney failure, requiring dialysis or a transplant.
CRM	Cardiorenal metabolic	The interconnected dysfunction of the heart, kidneys and metabolic system (including obesity and diabetes).
DNACPR	Do not attempt cardiopulmonary resuscitation	A documented clinical decision not to attempt CPR if a service user's heart or breathing stops. It is based on clinical assessment and service user wishes.



GSTT	Guy's and St Thomas' NHS Foundation Trust	A large hospital trust in providing specialist and community care in south east London.
Hypertension	High blood pressure	A condition where blood pressure is consistently high. This is often asymptomatic but increases the risk of kidney disease, heart attack and stroke.
INT	Integrated neighbourhood team	Where all parts of the health and care system – primary care, social care, community health, mental health, acute, and wider system partners – work closely together to support service user's needs more systematically.
KCH	King's College Hospital NHS Foundation Trust	A hospital trust providing specialist and community care in south east London.
MDT	Multidisciplinary team	A group of professionals from different disciplines who collaboratively assess and plan care, ensuring holistic, coordinated, and service user-centred management.
MMMoC	Multimorbidity model of care	A person-centred, holistic, and fully integrated model across all care settings delivered through INTs. Aims to shift care nearer to the service user, through community-based INTs and optimising proactive care.
PEoLC	Palliative and end of life care	Care that focuses on symptom control and quality of life for people with life-limiting conditions, and support for families, especially in (but not limited to) the final phase of life.
RRT	Renal replacement therapy	Treatment for end stage kidney disease or kidney failure, including haemodialysis, peritoneal dialysis, and kidney transplantation.
SDM	Shared decision-making	A collaborative approach where clinicians and service users make informed healthcare decisions together, combining clinical evidence with the service user's values, preferences, and circumstances.
SEL	South East London	A geographic area and NHS Integrated Care System covering the London boroughs of Bexley, Bromley, Greenwich, Lambeth, Lewisham and Southwark.
SGLT2i	Sodium-glucose co-transporter 2 inhibitors	A class of medications that lower blood glucose levels by increasing glucose



		excretion in the urine. These medications are protective of the kidney and the heart.
UCP	Universal care plan	A London wide digital platform that stores interoperable personalised care plans to support coordinated care across services.

