KIDNEY DISEASE – A GLOBAL PANDEMIC?

In his address to the LAKPA AGM Dr Jeevaratnam reflected on the challenges the service faces in managing the unprecedented demands from rising numbers of kidney patients and how these are being managed.

BACKGROUND

There is a tendency to think of kidney disease in terms of dialysis or transplantation but, in fact, the journey starts much earlier than this with diagnoses of Chronic Kidney Disease (CKD) and Acute Kidney Injury (AKI). The concern is that there is a growing population of people with CKD, usually related to individuals with diabetes, some ethnicities and the effects of ageing. It affects the quality of life and can cause years of disability depending on the progression and cause of the disease, as well as having significant implications for renal services in the future. The challenge therefore is to prevent or slow progression and identify possible interventions to avoid kidney failure needing dialysis or a transplant.

Clearly there will be cases that are not preventable but, given the rising number of cases, it will benefit both the patients and the resources available to ensure that this happens as little as possible.

A report commissioned by Kidney Research UK last year into the impact of kidney disease in the UK entitled 'Kidney Disease: A UK public health emergency' came up with a stark warning on the cost to the economy in 10 years' time of an unconstrained approach to managing kidney disease :

THE FULL REPORT CAN BE ACCESSED AT
https://www.kidneyresearchuk.org/about-us/influencing-change/health-economics-report

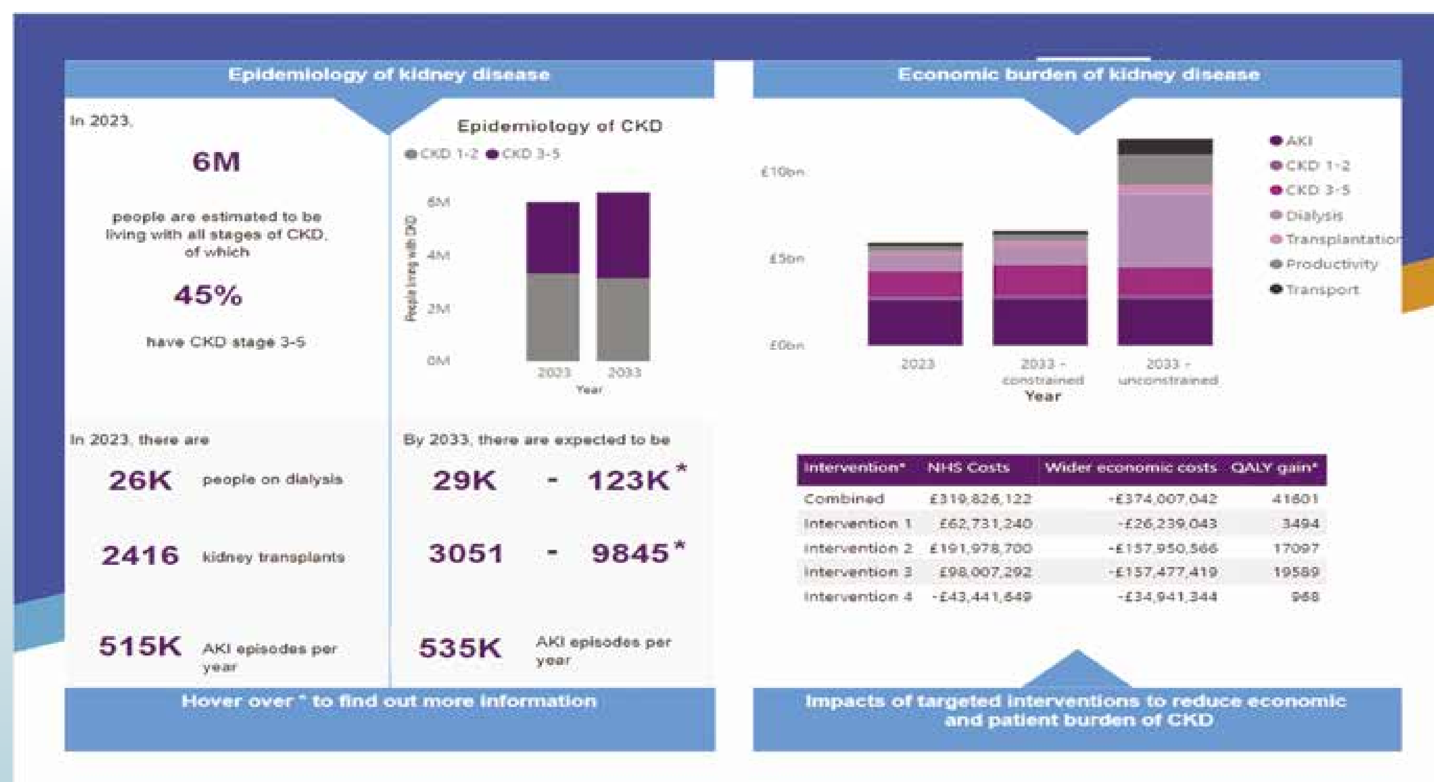
An unconstrained approach brings a frightening prospect of the likely cost of managing the resources that will be required, as well as the challenge of being able to accommodate all those who seek a donor kidney. In considering how to curb this increase we must look at both cost and quality of life gains. There is no question that interventions will cost money, but the four that were modelled in the report identify specific areas where the cost of the intervention will save on resources and improve quality of life for the long term:

1.Early/improved diagnosis – using outreach programmes to improve screening opportunities and increase early diagnosis.

2. Improved CKD management – identifying CKD patients who are either untreated or not receiving standard care in line with clinical guidelines.

3. New medications – use of SGLT-2 inhibitors to reduce cardiovascular events and slow progression.

4. Increased rates of transplantation through outreach and awareness to increase pre-emptive live donor transplants.



Intervention*	NHS Costs	Wider economic costs	QALY gain*
Combined	£319,826,122	-£374,007,042	41601
Intervention 1	£62,731,240	-£26,239,043	3494
Intervention 2	£191,978,700	-£157,950,566	17097
Intervention 3	£98,007,292	-£157,477,419	19589
Intervention 4	-£43,441,649	-£34,941,344	968

Renal Services in the East of England

NHS East and North Hertfordshire NHS Trust

Dialysis Centre and Satellite Units

Within East of England Renal Network there are currently 19 satellite sites

- 19 Satellite units
- Centres
- 6 Integrated Care Systems
- 16 Provider Organisations
- 22 Hospital sites

Integrated Care System	Registered Population April 2022	Primary Care Networks	GPs
Hertfordshire & West Essex	1,611,073	35	134
Mid & South Essex	1,252,481	27	149
Norfolk & Waveney	1,080,827	17	105
Bedfordshire, Luton & Milton Keynes	1,077,382	23	95
Suffolk & North East Essex	1,047,235	24	91
Cambridgeshire & Peterborough	1,013,985	22	88
East of England	**7,082,983**	**148**	**662**

RENAL SERVICES IN THE EAST OF ENGLAND

To help address the issues facing renal services the country is now divided into 8 regional renal networks - the Lister service (ENHT) comes within the East of England and has been designated as the host for the EoE renal network. The diagram indicates the service across the region.

Recognising that there are real benefits to pooling resources and drawing on expertise there are a variety of regional workstreams across the area to address the challenge of the rise in AKI and CKD– partly driven by greater awareness, but also by the ageing population and increased co-morbidities. The key therefore is to find ways to prevent the problems and, where problems do arise, to manage them at an earlier stage and in an integrated way utilising both community resource – GP's primarily, along with the hospital renal services. This can start with relatively simple things – e.g. rationalising blood pressure/ hypertension monitoring across the region as any improvements that can be achieved here will improve the long term outcomes for cardiovascular disease and CKD. In addition, we know that socio-economic deprivation is linked to increased AKI admissions, so there is a challenge to the country in providing the appropriate support to deliver the benefits to quality of life and improved outcomes.

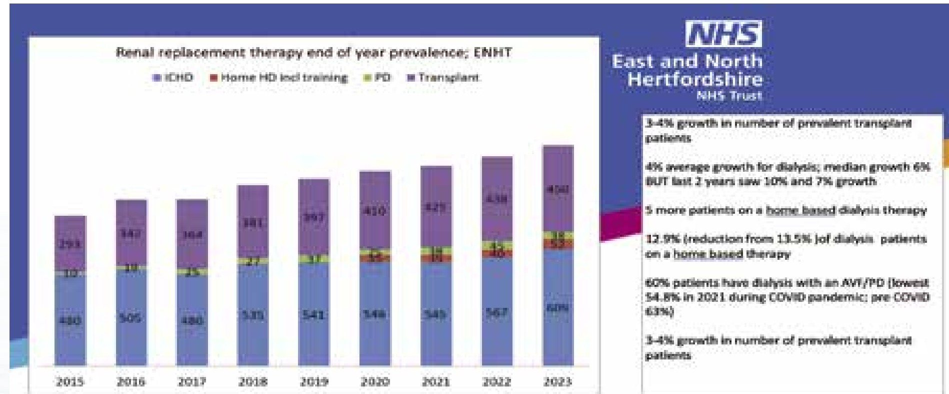
Patient transport also needs improvement. The annual national PREMS survey consistently gives the lowest scoring theme as transport. It is a particularly difficult nut to crack as renal providers don't directly commission transport services, but there is now work taking place to address this through a task and finish group currently working to determine how to improve this service. My personal opinion would be having independent commissioning of dedicated renal transport, but we will await the output of this group to determine the most cost effective way forward.

Another East of England development is ENKID, (East of England Network of Kidney inflammatory Diseases) which is an auto immune and inflammatory condition Multi-Disciplinary Team enabling full understanding, as a region, of rare and complex cases that are rarely seen – this will therefore give access to specialist care and the availability of new and high cost medications where appropriate. This is a new initiative which it is hoped can be translated to other areas.

RENAL SERVICE FOR THE LISTER AREA

The Lister renal service takes patients across a very wide geographical spread as indicated here and is much affected by the implications for dialysis and transplantation from the worrying rise in the numbers of kidney patients.

This is starkly demonstrated by the following graph



The challenges therefore are:-

In-centre dialysis

The growth in in-centre haemo-dialysis demand is a major problem and, of all the centres in the East of England, the Lister area has the highest growth at 3-7% pa, which is not reflected in the projected resource increase of 2%. Looking at the resource utilisation across the region's 3 renal providers had dialysis utilisation of over 90%, with the Lister area at 93.1%. This usage has increased since the survey was done and there is now no spare capacity, as well as an urgent need to mitigate the problem by growing in-centre dialysis as well as including more home dialysis and transplantation.

However, in centre dialysis units need to be modern, to deliver safe care and be designed in line with the significant evolution in design over the last five years e.g. the number of side rooms, the floor area. It includes input from allied health professionals in terms of the augmented care they give around the patient's journey e.g. social benefits and psychological support to provide a holistic approach to their care.

Home therapies

Improving the take up home therapies is key to mitigating growth – it also has better outcomes for patients, and it saves on workforce resources. Unfortunately, the percentage of patients on a home therapy has dropped, partly due to the current training space constraints.

The national target is 20% of eligible patients, but unfortunately, we are only running at around 13-15%. Despite the difficulties posed by our current home dialysis infrastructure issues, the numbers have increased, but not in proportion to the growth in the total dialysis population, although we are committed to reaching the 20% target as soon as possible.

Transplantation

Numbers of transplants have remained fairly steady for the past 7 years at around 66 p.a. the big challenge here is that, although transplantation has increased by over 3%, demand has jumped by 10%. The growing waiting list has prompted a number of measures nationally to improve organ availability as there is no way to meet the demand without the organs.

Vascular access

Key to achieving good quality dialysis and reducing infections is good vascular access. There were many theatre cancellations during Covid which affected the creation of permanent access through fistulas for haemo-dialysis or the insertion of catheters for PD. However, the introduction of the vascular hub later this year will mean that the numbers should start to rise significantly. In addition, there is a new type of fistula, and we are one of the few centres offering this – it appears that there is a cohort of patients who would benefit from this procedure so increasing the range of options for better vascular access.

Other services

In addition to the above there are also a number of other kidney services where resources are becoming stretched –

- Advanced Kidney Care clinic which is the pre-dialysis/ transplantation pathway.
- Patients with auto-immune conditions who need close monitoring and whose numbers are rising.
- Patients opting for a more conservative approach to their care.
- Young adults' clinic which is new and therefore the data is not available.

Nursing workforce

Sandra Cruickshank has been leading on workforce development through a number of initiatives, with an emphasis on training, including new simulation courses and renal masterclasses. She has also secured funding for an annual conference and for ensuring that the nursing roles reflect the changing needs of the service, with a view to eventually incorporating more advanced clinical practitioner roles.

Allied health teams' activity (Renal Support team, dieticians etc) Understanding that patients need more than clinical support, we have put the following in place:

- Energy therapists are covering all 5 units, plus RITA and the ward, supporting patients and staff.
- Weight management clinic pilot is now underway, supporting 8 patients across Lister and Chiltern
- There is now established a pathway with NHS Talking Therapies and our renal counsellors across Herts, Beds and West Essex for referrals.
- We have been able to recruit to the remaining counsellor hours.
- Feedback for the dieticians, counsellors and social workers from the Friends and Family Test, can now be obtained which will help in our development of these services.

Challenges for the coming year

Managing the increase in AKI and CKD patients.

There has been some successful work on virtual AKI and CKD platforms, the benefits of which are long term. We had developed a very good CKD platform which unfortunately has not been granted funding for the coming year from the ICBs. It is important not to lose the work so far, so the programme has been paused, and the service continues but at a reduced level. There is a real hope that this will show the benefit of this wider CKD management and it may be that, as the East of England network develops, there will be further buy-in to allow the project to continue fully.

Haemo Dialysis infrastructure

This is the biggest challenge and key to improving this is an increase in home dialysis and developing the infrastructure to support this. Although this project has been planned and deferred several times, I am cautiously optimistic that this year it will happen. It hinges on the planned ward reconfiguration going ahead and is planned to give a new home dialysis area with significantly more space and better workflow.

However, there will always be a need for in-centre units with all the in-centre units full and the majority likely to need replacing as there is little opportunity for expansion on the current sites. The trust is committed to a procurement process for the St Albans, Bedford and Harlow units, and further investment for the Lister in centre and home dialysis units.

This then is an overview of the service and the daunting challenges we face. I am confident that we will manage this as I cannot end without paying tribute to the wonderful team who have worked so hard to meet all the challenges thrown at them and remained so cheerful and committed. I am but the figurehead of this team and they have my deep and sincere thanks for all they do. I am confident that with their unfailing backing we will continue to strive to provide excellent patient centred care.

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