

Living Kidney Donor(LKD) Hero Assessment Process

S. Shojai, S. Skutle, S. Khosla, C. Dufurat-Hirt, S. Cockfield, K. Worton, D. Paulson, N. Kassam, K. Wen, B. Braam, J. Abele, S. Scott, R J R Cicio, J. Heck, C. Johns, M. Hunsche, R. Moore and P. Mathura

DEFINE OPPORTUNITY

Background, Problem and Aim Statement:

Compared to chronic dialysis, kidney transplantation(KT) in eligible patients with end-stage renal disease (ESRD) is associated with better patient survival, improved quality of life, and lower healthcare costs (transplanting 10 more patients per year, can save healthcare system approximately \$7.2 million over 5 years). However, many patients die waiting for KT due to the growing gap between demand and supply of organ. Therefore, living donor kidney transplant (LDKT) is the realistic way to save lives.

In Alberta, ESRD prevalence has increased 40% over the last decade but 19 out of 20 of Albertans under the age of 60 with ESRD start on dialysis (suboptimal treatment) instead of kidney transplantation.

A recent study has shown significant increase in LKDT rate (from 4.3 to 32.6 per million population) by reducing the potential donor evaluation time. Longer evaluation time is also associated with higher cost and lower rate of preemptive kidney transplantation. Our data (2016) shows LKD evaluation process takes almost one year and requires at least 13 encounters between the potential donor and the health system (various appointments for Lab tests, radiology, vaccination, Social worker, coordinators and doctors) which has a direct impact on the number of potential kidney donors accounting for our only 14% conversion rate of potential donors to actual donors. The aim of this project is to a standard, measurable, timely assessment process that decreases the assessment timeframe and increases the number of LKDT. We are aiming to decrease the 13 encounters to 4 and reduce 7 months of evaluation time to two days.

SUSTAIN RESULTS

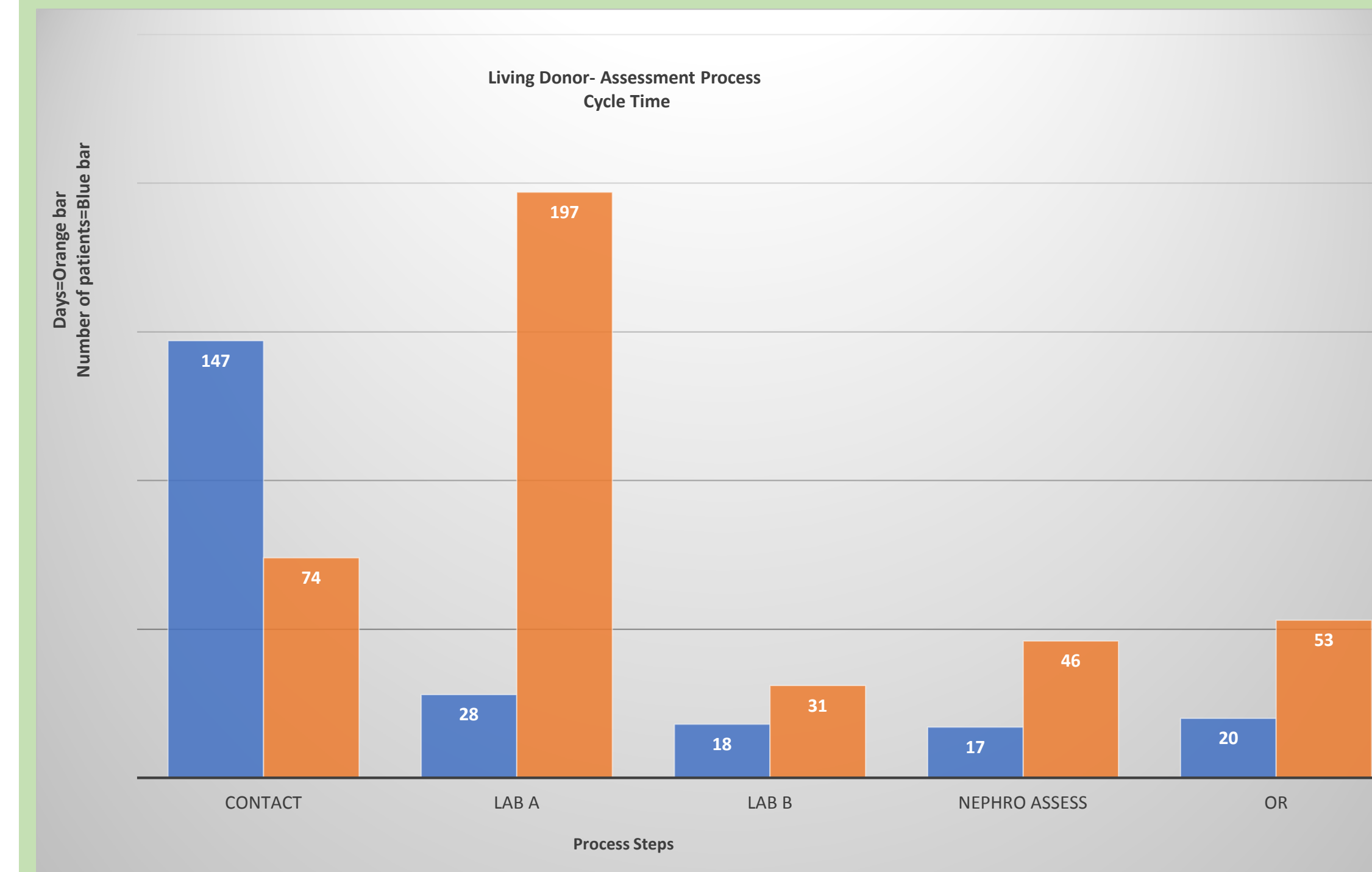
The first patient one-day assessment was completed successfully (PDSA#1). Patient arrived at 7:05 and was approved for kidney donation at 16:35 the same day. The patient was very satisfied with the process. Takt time was 570 minutes, diagnostic assessment time and the number of encounters were reduced by more than 90% (276 days to 21) and 80% (10 to 2) respectively. PDSA (#2) will engage 3 patients in the one-day assessment process to determine impact. Then the one-day assessment will be offered as a preferred method of assessment for eligible patients (maintenance and spreading phase).

References:

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BUILD UNDERSTANDING

Baseline data (2016)



Graph 1: LKD assessment process, outlining patient volume and cycle time in days from contact to operating room/organ donation

MANAGE CHANGE

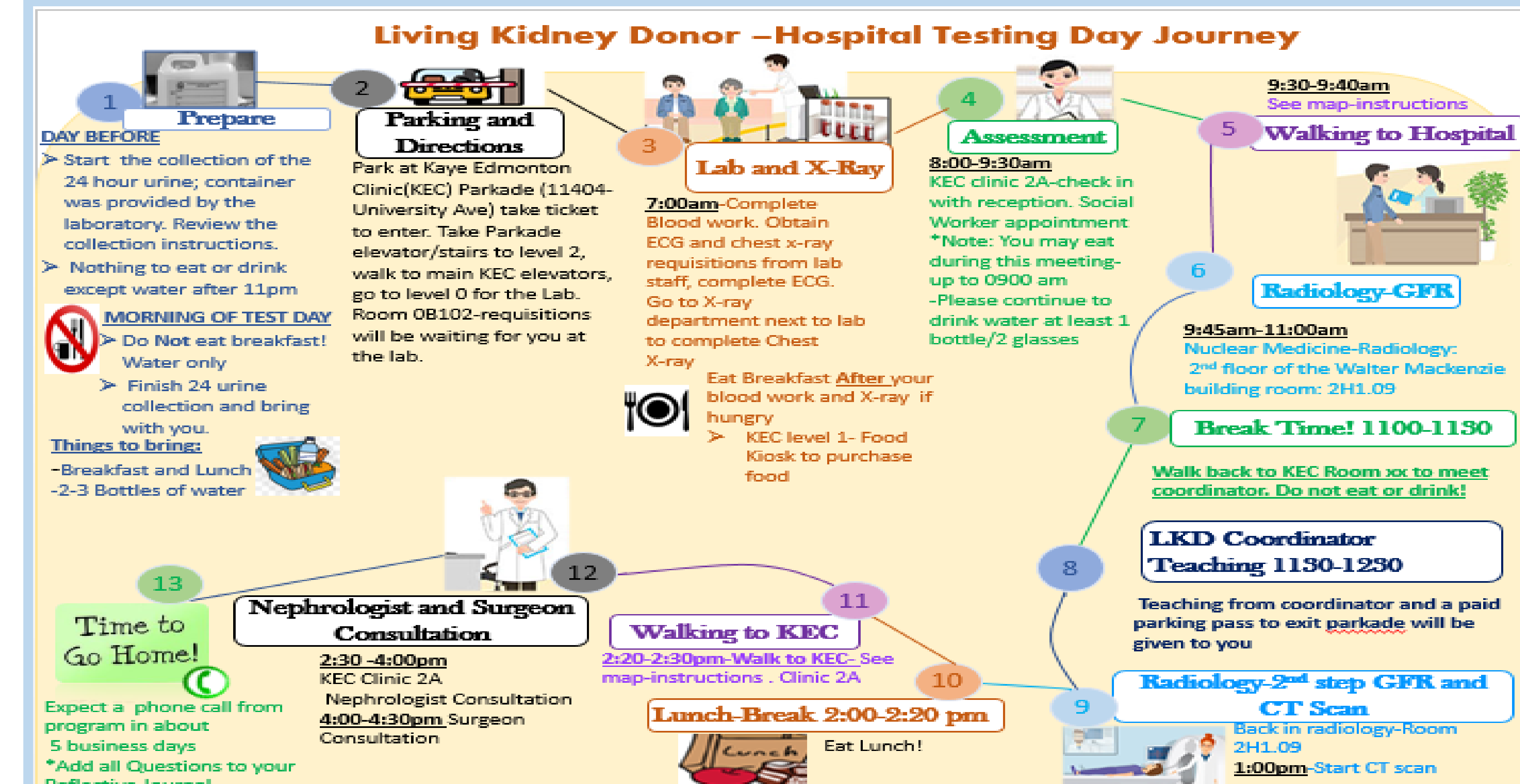
- A QI team was developed which included a nephrologist, the LKD coordinators and a QI consultant supported by various operational leaders
- 1:1 meetings with salient stakeholders required to be part of the hospital assessment day where consulted in the design and approach
- Patient centered approach for timely assessment also includes a reflective journal process for patients and a end of hospital day formal survey to ensure this hospital day supports patients needs.

ACT TO IMPROVE

Plan Do study Act Cycle #1: Sept 10, 2018 to Sept 10, 2019

Develop a 2 day diagnostic assessment and completion process

1. Initial testing/screening provided after initial contact with the LKD coordinators
2. One day hospital screening with both Nephrologist and Surgeon appointment



Process measures:

- Number of patients who complete initial screening who qualify to complete the full hospital screening
- Number of patients who complete the hospital day that are candidates for LKD

Outcome measure:

- 50% reduction in the diagnostic assessment steps (lab A and B)
- 75% reduction in encounters with the health system
- 50% conversation rate improvement of potential donors from contact to operating room

Balance measures:

- Initial patient information is not completed
- Conversion rate from initial contact to start of assessment is not decreased
- Repeat diagnostic test
- Wait time between completion of assessment and surgery is not increased.

SHARE LEARNING

Lessons Learnt:

- Coordinating diagnostic screening within a hospital is complex and involves many departments willingness to partner.
- Effective communication is the key to success.
- Patients giving the gift of life need to be supported closely with the LKD program to navigate patients through the screening testing process to ensure timely completion and review by the Nephrologist.
- Further study on the sustainability of the new process is required.

Why this Quality Improvement matters

To Patients
Organ donation saves lives and prevent a lifetime of dialysis

To Albertans
Improving the options to Albertans with ESRD

To the healthcare system
Ensuring financial stewardship yields maximum healthcare performance

