Item S1. Detailed Methods

We conducted a retrospective cohort study using two independent multidisciplinary CKD cohorts in Kingston, Ontario. The derivation cohort included prevalent patients followed in multidisciplinary CKD clinic in 2013 as described previously (Kidney Medicine, Volume 4, Issue 4, 100440). In 2013, multidisciplinary CKD clinic eligibility was determined based on eGFR alone, using a cut-off of < 30 mL/min/1.73m^2. The validation cohort included incident patients between 2018 and 2020, as well as all prevalent patients seen at least once in multidisciplinary CKD clinic in 2018, excluding patients in the derivation cohort. During this time-period, patients were only eligible for multidisciplinary CKD clinic if they had < 15 mL/min/1.73m^2 or 2-year KFRE score ≥ 10%. Patients with a previous history of kidney transplantation were excluded.

The validation cohort was developed to have an independent cohort of patients in whom we could validate clinical thresholds determined using the derivation cohort. Baseline KFRE-2 scores were calculated using the urine albumin: creatinine ratio (urine ACR) and eGFR associated with the index clinic visit. The index clinic visit was defined as the first clinic visit in each cohort time-period (2013 for the derivation cohort and 2018-2020 for the validation cohort). The most recent bloodwork and urine ACR were pulled into the nephrology electronic medical record (EMR) and recorded for the index visit. These were typically obtained in the 2 weeks preceding the clinic visit or drawn on the day of. If ACR was greater than 4 weeks before or after the first visit of the year, the next visit with appropriately timed ACR and eGFR became the index visit. The date of the index clinic visit was set as time zero, and patients were followed for two years from this time onward.

The primary outcome was KRT initiation, defined as pre-emptive transplant or starting dialysis within 2-years of the index visit. People who died without receiving KRT were considered in the no KRT group. KRT outcomes were ascertained using the nephrology EMR. Kingston Health Sciences Center offers the only KRT program in our health region, and therefore KRT outcome data are very robust with little potential for loss to follow up. Death outcomes were ascertained using data from the Ontario Registrar General (ORG) in the derivation cohort and from the hospital EMR in the validation cohort. In the derivation cohort, we ascertained using the hospital EMR (blood work and hospital visits) that all but two patients not on KRT and still alive as per the ORG were still living in the health region at study end. These two patients were removed as they had moved from the health region and their outcomes could not be ascertained. Ongoing residency within the health region was not ascertained at study end in the validation cohort and it is possible that some patients had moved out of our health region and started KRT. Sensitivity, specificity, positive (PPV) and negative predictive values (NPV) were reported across the range of predicted risk probabilities to determine thresholds with potential clinical utility. Ethics approval was obtained from the Health Sciences and Affiliated Teaching Hospitals Research Ethics Board (6004492).

Table S1. Observed KRT and Death at 2-years

	Derivation Cohort	Validation Cohort
KRT only, n (%)	77 (17)	154 (26)
Death after KRT, n (%)	13 (3)	25 (4)
Death prior to KRT, n (%)	78 (18)	75 (13)
No event, n (%)	274 (62)	336 (57)