

Irish Living Kidney Donor Demographics and Outcomes from 2000–2017

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Introduction: Living donor kidney transplantation (LDKT) has become the treatment of choice for end-stage renal disease (ESRD) worldwide. We report the national Irish experience over an 18 year period.

Methods: Using the Irish National Kidney Transplant Registry we identified 341 donors, who had donated a kidney for transplantation between 2000 and 2017. We report donor demographics, length of stay (LOS) with associated variables, complications and donor outcomes including estimated glomerular filtration rate (eGFR) at 1, 3 and 5 years post-living donor nephrectomy (LDN).

Results: Median age of donation was 44 years (range 20–72), 52% were female. Siblings and parents comprised the majority of donor groups, at 55% and 15% respectively. Median length of stay (LOS) post-LDN was 5 days. Fifteen percent of patients had a complication; Clavien-Dindo 1 (9.4%), 2 (4.5%) and 3 (0.08%). There is only one death recorded in LDN population to date, at 2 years post donation secondary to a sudden cardiac event. Donor age, BMI, relationship to recipient, gender and time point of donation did not impact on patient's LOS. Follow up with local nephrology services was 72% and 55% at 1 and 5 years post-donation respectively. The incidence of newly diagnosed hypertension post-LDN was 12.5%. The median eGFR fell from 95 mL/min/1.73m² pre-LDN to 63 mL/min/1.73m² 1 year after LDN. The post-LDN eGFR was maintained, with a median eGFR of 63 at 5 years post-LDN.

Conclusion: We report successful outcomes for living kidney donors in Ireland with results comparable to other national series¹. Our study demonstrates an acceptable reduction in post-LDN eGFR in appropriately selected LDKT patients with preserved eGFR at 5 years post-LDN.

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The battle within minimally invasive kidney surgery: Laparoscopic vs robotic partial nephrectomy

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Introduction: There is a growing body of evidence to support the use of minimally invasive partial nephrectomy (MIPN) for treatment of small renal masses. Recent studies have demonstrated benefits for robotic-assisted partial nephrectomy (RAPN) over laparoscopic partial nephrectomy (LPN) in warm-ischaemia time (WIT) and hospital length of stay (LOS).¹ We reviewed our institutional experience over the last 4 years to assess for differences in tumour characteristics and patient outcomes.

Methods: Electronic records were reviewed to identify all MIPN performed in the Mater Misericordiae Hospital campus on Eccles street in Dublin between January 2015 and March 2019.

Results: A total of 57 LPN and 32 RPN were performed. There was no difference in tumour size between the two groups (LPN = 3.2 cm, RAPN = 3.3 cm, $p = 0.2$). The majority of cases were for clear cell renal cell carcinoma (57% and 62% in the LPN and RAPN groups respectively), and for early stage disease (65% stage T1 disease in both groups). RAPN was associated with a shorter WIT than LPN (mean = 30.3 vs 36.9 minutes, $p = 0.02$). There was no significant difference in length of stay (LPN = 4.6, RAPN = 4.2 days, $p = 0.58$). Major complications

(clavien-dindo 3 or higher) were low in both groups, but higher in the LPN group ($n = 3$, all pseudoaneurysms) than the RPN group ($n = 1$, urinoma).

Conclusion: Outcomes for MIPN are satisfactory, however, RAPN is associated with a shorter WIT and reduced major postoperative complications.

Reference

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Post-MRI primary local anaesthetic freehand transperineal prostate biopsy significantly reduces biopsy rate in comparison to trans-rectal prostate biopsy: Implications for service burden in a secondary-care referral centre in Northern Ireland

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Introduction: In the post-PROMIS study era, multiparametric prostate MRI has been increasingly adopted in triage and targeting of prostatic biopsies. In combination with this, a trans-perineal (TP) biopsy approach is increasingly favoured. There is however high cost associated with some of these techniques. In our centre, we have replaced local anaesthetic (LA) trans-rectal (TRUS) biopsies entirely with post-MRI LA freehand TP biopsies for all prostate cancer diagnostics, with an overall reduced burden to our service.

Patients and Methods: We compared prospectively collected data for all LA freehand TP biopsies performed in six months with all TRUS biopsies performed in an equivalent period prior to introduction of TP biopsies to our centre. TRUS biopsy data was collected retrospectively.

Results: A total of 182 patients underwent TRUS biopsy in a six-month period prior to the introduction of TP biopsy at our centre. In comparison, 137 patients underwent TP biopsy in a six-month period. Gross positive biopsy rate in biopsy naïve patients was 54% in TRUS biopsy and 80% in TP biopsy. Consumables for freehand TP biopsy were £10 cheaper per biopsy than TRUS.

Conclusions: Our results demonstrate a marked reduction in biopsy rate in patients undergoing a pre-biopsy MRI. Furthermore, LA freehand TP biopsy had a higher pickup rate for prostate cancer and a higher incidence of Gleason grade 7 or higher, in comparison to TRUS biopsy. LA freehand TP biopsy is also equivalent in cost to TRUS biopsy. MRI guided freehand TP biopsy however does require more preparation time.

Cystograms are not necessary after bladder cuff excision in nephroureterectomy patients-a systematic review

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Introduction: Nephroureterectomy (NU) is the standard treatment in high risk upper tract urothelial carcinoma. A crucial step in a NU is excision of the bladder cuff. A catheter is placed postoperatively and depending on the surgeon, a cystogram prior to catheter removal may