

## Introduction:

- Living Related Donor (LRD) Kidney transplantation is the optimum treatment for suitable patients with End Stage Renal Disease [1].
- The advantages are better graft and patient survival compared to deceased donor grafts [2].
- UK data has shown low live donor and pre-emptive kidney transplant rate in the West Midlands [3].
- A quality improvement project (Transplant First) was introduced in 2015 to improve access to kidney transplantation [3].

## Objectives:

In our centre, we conducted this study to evaluate the LRD program particularly looking at the number of incidental findings among presumed healthy live donors during their transplant work up and the impact on recipient's outcomes.

## Methods:

- The records of all live donors who had transplant work up in our centre between 2012 and 2016 were reviewed.
- Those with incidental findings were identified and categorised into radiological, laboratory and other abnormalities (Table 1).

## Results:

- In the five years between 2012-2016 there were a total of 68 live donors who had their transplant work up out of which 17 (25%) were found to have incidental findings.
- The majority of incidental findings were abnormal radiological scans (58.8%) followed by abnormal blood results (29.4%) and other issues (11.7%).
- Most of the live donors with incidental findings required further investigations (64.7%) and referral to other specialist (88.2%) (Figure 1&2).

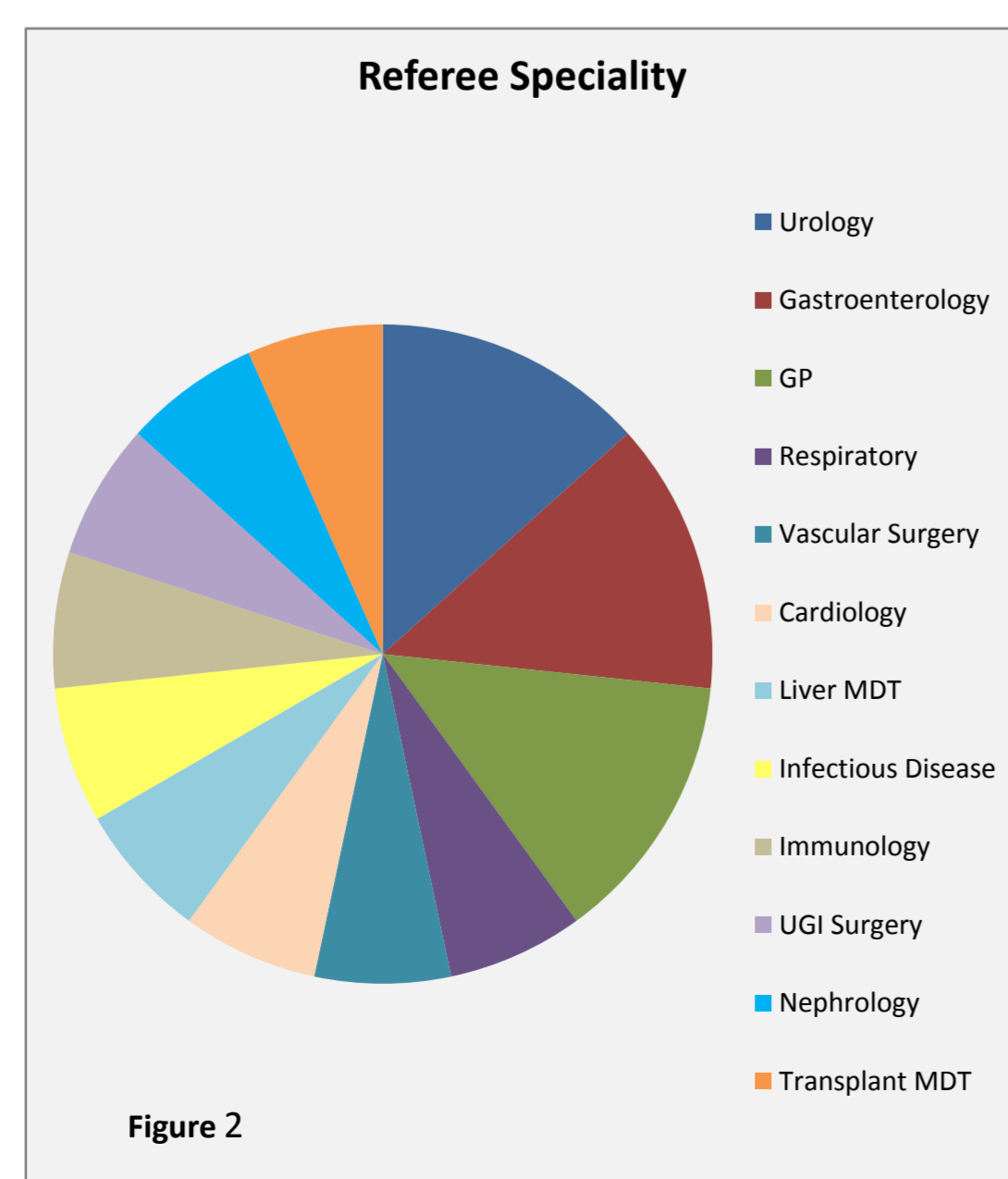
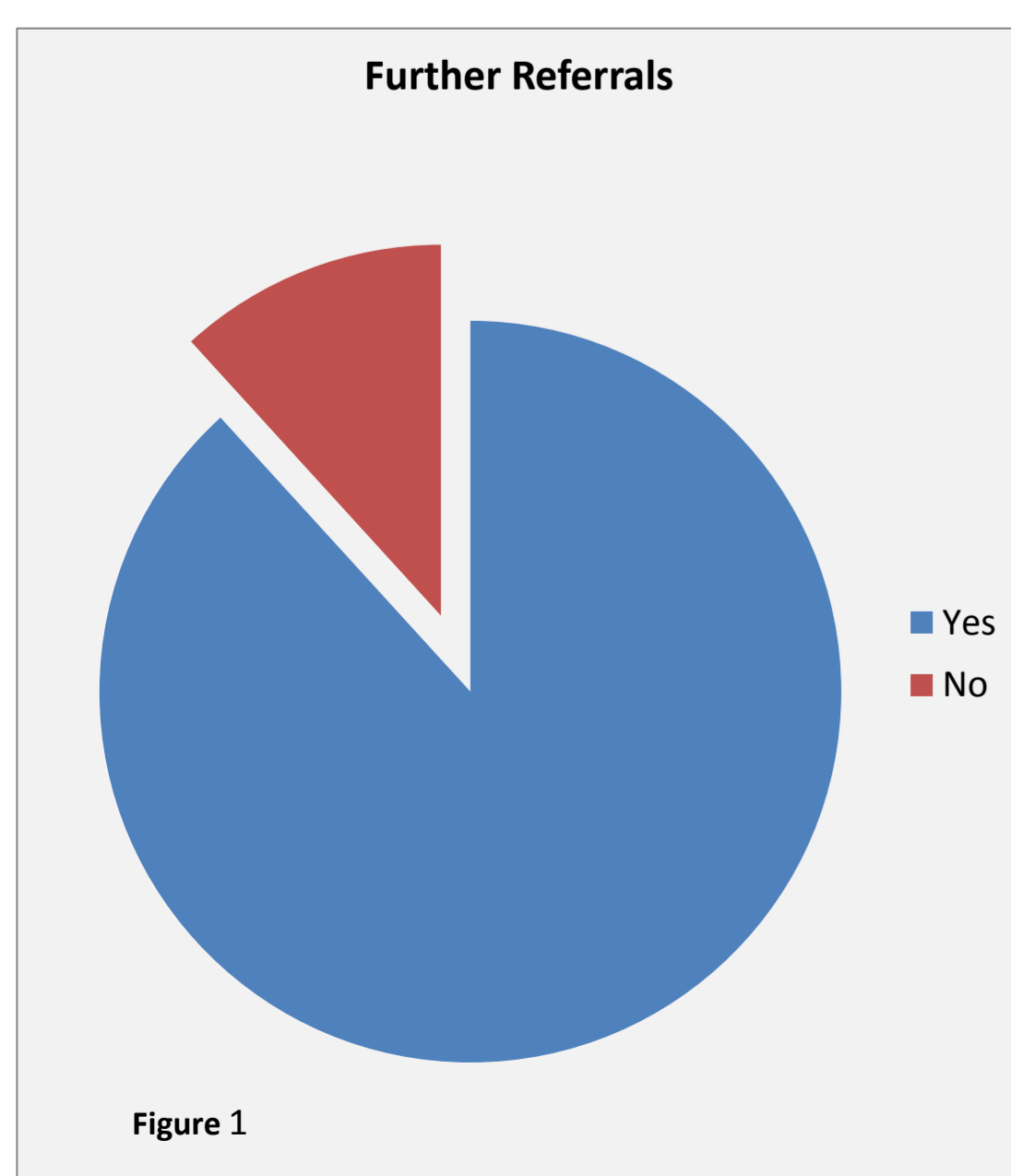


Table 1

Type of Incidental Finding (N=17)		
Abnormal Radiology Results (N=10)	Abnormal Laboratory Results (N=5)	Others (N=2)
Abnormal CT Abdomen (N=6) - Renal Stones - Renal tumour - Vascular abnormality - Liver lesions and small renal stone - Accessory renal artery	Biochemistry (N=3) - Low e GFR - Abnormal LFTs - Raised cholesterol	Psychological issues
Unequal split function on DMSA (N=2)	Microbiology (N=2) - Malaria Antigen - HCV PCR	Anaphylaxis at anaesthetic induction
Low ejection fraction on ECHO (N=1)		
Nodular shadows on CXR? Sarcoidosis (N=1)		

- Only 2 donors with radiological incidental findings were suitable to donate after further work up with an average time delay of 9.5 months.
- 8 live donors (47%) were excluded from donation, the outcome of their potential recipients were alternative LRD (N=3), cadaveric transplant (N=2), on-going dialysis (N=2), and one waiting on the deceased list (Table 2&3).
- The rest of live donors were put on hold (N=4) or their recipients (N=3) were no longer deemed suitable for transplant (Table 2&3).

Table 3

Outcome of donors with incidental Finding (N=17)	Number	%
Suitable to donate	2	11.8
Excluded	8	47
Put on hold	4	23.5
Recipients are no longer suitable	3	17.6

Table 2

Recipient's outcome in whom original LRD had incidental finding (N=17)	Number	%
LRD went ahead	2	47
Recipient had another LRD	3	
Recipient had cadaveric transplant	2	
Recipient had SPK	1	
Recipient listed on Cadaveric Transplant list	3	35.3
Recipient remained on dialysis	2	
Awaited Further Assessment	1	
Recipient became unsuitable for transplant	2	17.6
Recipient died	1	

## Conclusion:

- At our centre, a quarter of presumed healthy live donors had incidental findings identified during the transplant work up.
- Almost half of them were completely excluded from donation.
- This highlights an obstacle to the growth of the LRD program. Finding an alternative LRD should be discussed and considered at the start of the work up process.

## References:

- Suthanthiran M, Strom TB. Renal transplantation. *N Engl J Med* 1994; 331:365.
- Miles CD, Schaubel DE, Liu D, Port FK, Rao PS. The role of donor-recipient relationship in long-term outcomes of living donor renal transplantation. *Transplantation*. 2008;85(10):1483-8.
- Transplant First: improving access to renal transplantation in the West Midlands-[www.wmscnsenate.nhs.uk](http://www.wmscnsenate.nhs.uk)