West Midlands - Transplant First Audit & Education Event

Lunch

12.15-13.00
West Midlands - Transplant First Audit & Education Event

Interactive case

13.00-13.30
WHAT AM I TREATING?

West Midlands Audit and Education event  Jul 2017
46 yo Woman

- Crohn’s Disease with previous sub-total Colectomy/ileostomy 2001, laparotomy 2009

- Azathioprine 50mg od (previously Adalimumab)

- Multi organ failure ? Infective 2013

- ESRD Small Right kidney (possibly thrombosed) secondary FSGS/ATN in left
Further history

• Moderately impaired LV function
  • Minor atheroma on cardiac angiography done when eGFR 12

• Atrial Fibrillation (Warfarin/Bisoprolol)

• Previous bleeding DU

• Previous PE (anticardiolipin positive)
Transplant

- Pre-emptive living donor 11/04/2016
- 111 mismatch
- ABO compatible
- CRF 0%
- CMV ++
- EBV +/- VZV +
What would be your first line immunosuppression?

1. Tacrolimus/MMF/Pred
2. Tacrolimus/Myfortic/Pred
3. Tacrolimus/AZA/Pred
4. Other
Medication on discharge

- Prograf 2.5mg bd
- Azathioprine 75mg od
- Prednisolone 10mg bd
- Co-trimoxazole 480mg od
- Gabapentin 200mg od
- Nystatin 100,000 units bd
- Omeprazole 40mg od
- Simvastatin 40mg od
- Valganciclovir 450mg od
- Spiriva 80mcg inhaler od
- Sodium Bicarbonate 500mg qds
- Dalteparin injection

eGFR 50
Tac level 8.3

Would you change anything?
Possible issues

- CMV prophylaxis
  - Stopped it

- Cardiac meds
  - Restarted bisoprolol

- Tacrolimus level
  - Didn’t notice
Admission

- Fast AF (Flutter 2:1)
- Fluid overload
- AKI
- Low Ca and Mg
Readmission Friday

- Further fluid overload
- UTI excluded
- Tac 7.7

US fluid collection near upper pole (50x14x22), fluid in LIF
What would you do?

1. Biopsy at weekend

2. Pulse with Steroids

3. Drain fluid collection

4. Other
Methyl Pred x3

Biopsy
Fluid drained during procedure
Mild ATN
Just amounting to borderline rejection (i1 t0-1)
Mononuclear cells in one vessel wall
BK/C4D/DSA negative
What would you do with immunosupression?

1. ATG
2. Increase Tacrolimus
3. Change Aza to mycophenolate
4. Other
Biopsy
Focal tubulitis (t1)
Vessel damage with lymphocytes (v1)
Banf IIa
BK/C4d/DSA negative

US
No fluid collection

Estimated GFR (mL/min/1.73m²)

May 2016
Sun 15
Sun 22
Jun 1
Other than give steroids what would you do with immunosuppression?

1. ATG

2. Plasma exchange

3. Change Aza to Mycophenolate

4. Other
Methyl Pred x3
AZA changed to MMF

Biopsy: lots of fluid drained out
Ongoing vascular rejection Banff IIA
Would you do anything else?
What now?

Estimated GFR (mL/min/1.73m²)
What would you do next?

1. CT +/- drain
2. ATG
3. Biopsy again
4. Other/combination of above
CT
- No fluid collection - some ascites

Biopsy
- Some increase glomerular cellularity (g1)
- ptc0
- I1 no tubulitis
- Ongoing vascular rejection v1 (in small arteries)
- C4d Neg / DSA neg
- Banff IIA
What would you do next?

1. Plasma exchange

2. ATG

3. Methyl Pred alone

4. Other/combination of above
ATG 2 doses of 1.5mg/kg

Scan
Collection
Biopsy
Fluid drained itself
No rejection
Stoke ATG experience

- 6 patients
- Age 34, 53, 51, 50, 47, 63
- Usually 2-3 doses
- 1 ITU stay
- No malignancy (yet)
Further course

- UTIs until approx Jan 17
  - Baseline immunosuppression (Tac (4-7), MMF 500bd, pred 5)
  - Lymphocytes recovered
  - Prophylactic antibiotics

- Crohns
  - High stoma output (transiently reduced following ATG?)
  - Bacterial overgrowth
  - Not active
  - On-going calcium and magnesium supplementation
Crohns and Immunosuppression?

- Azathioprine, Methotrexate or Mercaptopurine
- Some ANTI TNF e.g. adilimubab/infliximab
- Limited evidence for Mycophenolate
- Mycophenolate may contribute to bowel disturbance
- Immunosuppression load contributes to small bowel overgrowth
Subsequent course

Should we think of changing immunosuppression?
Take home messages

• Interaction between transplant and other long term conditions

• When two things are affecting kidney at once it can be difficult to decide on best treatment
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Cardiology abstract and discussion of regional guideline

13.30-14.00
Zaheer Alisiddiq
Kerry Tomlinson
Reducing delays to transplant listing: A reno-protective protocol facilitates safe coronary investigation and treatment in patients with severe renal impairment

Ross Thorndyke, Yawar Abbas, Zaheer Alisiddiq, Mohammad Ayyaz UlHaq, Mark Gunning, Kerry Tomlinson

Royal Stoke University Hospital, Stoke-on-Trent
Background

- The West Midlands Transplant First Project has identified different approaches to coronary angiography in renal transplant candidates with possible underlying coronary artery disease.

- Caution is warranted in order to prevent contrast nephropathy.

- Some units defer angiography until dialysis is established.

- This can lead to inevitable delays in listing for transplant.

- It may also lead to a failure to identify important coronary lesions.

- At our institution it is not the practice to delay investigation until dialysis.

- Invasive procedures are performed in the catheter laboratory employing a “renoprotective protocol”
**Renoprotective protocol**

- Patients receive weight adjusted infusion of 1.26% sodium bicarbonate solution administered both before and after the procedure over 6 hours.

- An iso-osmolar contrast agent, iodixanol, is used.

- Of greatest importance, the volume of contrast delivered is kept to an absolute minimum.

- Multiple views are rationed, and short firm injections of smaller aliquots of contrast used to delineate coronary anatomy.

- This applies to both diagnostic angiography as well as percutaneous coronary intervention.
Methods

- The clinical records of 50 patients with documented renal impairment, attending the catheter lab over a 5 year period, and receiving the “renoprotective protocol” were reviewed.

- None of this cohort were on dialysis at the time of investigation.

- 21 patients had an eGFR of < 40 mls/min/1.72 m2 prior to investigation. These constituted the study cohort.

- Procedural details, serum biochemistry before and after investigation and clinical outcome were analysed.

- Continuous variables were compared using the paired Students t test.
Results

- The median age was 65 years (52-72). 15/21 were male
- Significant coronary disease was identified in 12/21 patients
- PCI was carried out in 6/21 (29%) patients
- 3 were referred for surgical revascularisation
- A pre-procedure eGFR of <20 mls/min/1.72m2 was identified in 12/21 patients
- No patient required precipitant dialysis following coronary angiography or PCI
- The median volume of contrast used was 75mls (45-100mls)
- This included both diagnostic and therapeutic cases
Mean GFR pre and post procedure

\[ p = \text{ns} \]
Mean creatinine pre and post procedure

Creatinine pre
Creatinine post

p = ns
• For those 12 patients with an eGFR of < 20 pre-procedure, there was no impact upon renal performance

• In that group the mean eGFR was 12 mls/min/1.72m2 before and after the catheter lab procedure (p=ns)

• Of the whole cohort, 10/21 (48%) were placed on the renal transplant list following the procedure

• (Not all were being worked up from transplant in the first instance)

• 3 have successfully undergone transplantation
Conclusions

• Coronary angiography and PCI can be safely undertaken in patients with renal impairment who are not on dialysis

• This requires judicious use of contrast, and infusion of 1.26% sodium bicarbonate solution before and after the procedure

• In our cohort significant coronary disease was identified in over half

• Using this approach, access to renal transplantation is not delayed until dialysis is established
Cardiology workup
RA Guideline 2.1 – Tx : Pre-transplant assessment

We recommend that the object of pre-transplant assessment is:

- to ensure transplantation is technically possible
- to ensure the recipient’s chances of survival are not compromised by transplantation
- to ensure that graft survival is not limited by premature death (maximum benefit obtained from a limited resource)
- to ensure pre-existing conditions are not exacerbated by transplantation
- to identify measures to be taken to minimise peri- and post-operative complications
- to inform patients of the likely risks and benefits of transplantation
We suggest that there is no compelling evidence that in ESRD patients pretransplantation screening tests for coronary artery disease in asymptomatic patients is effective in preventing future cardiac events or reducing mortality after transplantation. Until better evidence emerges, screening tests may be best used to identify high-risk patients for exclusion from the transplant waiting list. (2C)
Patients can be divided into those at low, moderate or high cardiovascular risk:

**Low Risk**
- CXR
- ECG
- ECHO

Moderate Risk
- >50
- Diabetic
- IHD/CCF
- PVD/CVD
- BMI 30-35
- RRT>5yrs

High Risk
- Angina/previous MI
- Moderate/Severe LV impairment
- PTCA/CABG > 5 yrs ago

**CXR/ECG/ECHO/MIBI or DSE/iliac Dopplers**

- Abnormal
  - List for transplant: ECG/CXR repeated 2 yearly. Echo repeated every 3 years (or sooner if high risk, or symptomatic changes). MIBI or DSE every 5 years. (for Coventry patients ECHO 2 yearly and MIBI 3 yearly)

- Normal
  - NB LVH on echo indicated as normal

**Not suitable**

- Revascularisation indicated and successful

**Revascularisation not possible or irreversible poor LV function - not suitable for transplant**

- NB Moderate or High risk should undergo iliac dopplers
What we know

- We are not assessing more patients for transplant
- The wait for transplant is going down - median is less than 3 years
- The number on the list is going down
- Only most high risk patients need MIBI/DSE
- Most patients will not need repeat MIBI/DSE
- Can be false positives and false negatives
- Cardiovascular disease progresses (more rapidly in our patients)
Real patient

- 47yo man
- DM
- Goes to gym, cycles, uses weights
- Asymptomatic
- Abnormal MIBI
- Significant left main stem disease
- CABG
Given absence of evidence for repeating MIBI/DSE at 5 years (3 for Coventry) should we:

1. Remove need for repeat MIBI/DSE
2. Reduce period between repeats
3. Increase period between repeats
4. Keep same requirements as in current standards
Living donor abstract

14.00-14.10
Fatima Abdelaal
Incidental findings among potential Living Related Kidney Donors at a single non-transplanting centre

Fatima Abdelaal, Karen Hodgson, Husham Rasheed
Introduction

• Living Related Donor (LRD) Kidney transplantation is the optimum treatment for suitable patients with End Stage Renal Disease.

• The advantages are better graft and patient survival compared to deceased donor grafts.

• UK data has shown low live donor and pre-emptive kidney transplant rate in the West Midlands.

• A quality improvement project (Transplant First) was introduced in 2015 to improve access to kidney transplantation.
Number of Incidental Findings

- 2012: 1
- 2013: 2
- 2014: 4
- 2015: 0
- 2016: 10
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.
Results
• In the five years between 2012-2016 there were a total of 68 live donors who had their transplant work up.

• 17 donors (25%) were found to have incidental findings.
Type of Incidental Finding

- Radiology: 59%
- Laboratory: 29%
- Others: 12%
<table>
<thead>
<tr>
<th>Type of Incidental Finding (N=17)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abnormal Imaging Results (N=10)</strong></td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>Abnormal CT Abdomen (N=6)</td>
</tr>
<tr>
<td>- Renal Stones</td>
</tr>
<tr>
<td>- Renal tumour</td>
</tr>
<tr>
<td>- Vascular abnormality</td>
</tr>
<tr>
<td>- Gastric cancer</td>
</tr>
<tr>
<td>- Liver lesions and small renal stone</td>
</tr>
<tr>
<td>- Accessory renal artery</td>
</tr>
<tr>
<td>Unequal split function on DMSA  (N=2)</td>
</tr>
<tr>
<td>Low ejection fraction on ECHO (N=1)</td>
</tr>
<tr>
<td>Nodular shadows on CXR? Sarcoidosis (N=1)</td>
</tr>
</tbody>
</table>
• Most of the live donors with incidental findings required further investigations (65%) and referral to other specialist (88%).
<table>
<thead>
<tr>
<th>Type of Further Investigation</th>
<th>Images N=5</th>
<th>Laboratory N=5</th>
<th>Others N=1</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Images</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- CT Renogram</td>
<td>- Stone screen</td>
<td></td>
<td>- Allergy testing</td>
</tr>
<tr>
<td>- CT Chest</td>
<td>- Liver Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Staging CT and Endoscopy</td>
<td>- Renal screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- MRI Liver</td>
<td>- Malaria screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- ETT/Coronary Angiogram</td>
<td>- Hepatitis C genotype</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Outcome of donors with Incidental Finding (N=17)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable to donate</td>
<td>11.8</td>
</tr>
<tr>
<td>Excluded</td>
<td>47</td>
</tr>
<tr>
<td>Put on hold</td>
<td>23.5</td>
</tr>
<tr>
<td>Recipients are no longer suitable</td>
<td>17.6</td>
</tr>
</tbody>
</table>
• Only 2 donors with radiological incidental findings were suitable to donate after further work up with an average time delay of 9.5 months.
<table>
<thead>
<tr>
<th>Recipient's outcome in whom original LRD had incidental finding (N=17)</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRD went ahead</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Recipient had another LRD</td>
<td>3</td>
<td>47</td>
</tr>
<tr>
<td>Recipient had cadaveric transplant</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Recipient had SPK</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Recipient listed on cadaveric Transplant list</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Recipient remained on dialysis</td>
<td>2</td>
<td>35.3</td>
</tr>
<tr>
<td>Awaited Further Assessment</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Recipient became unsuitable for transplant</td>
<td>2</td>
<td>17.6</td>
</tr>
<tr>
<td>Recipient died</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
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.
Thank You
West Midlands - Transplant First Audit & Education Event

Living donor transplantation - feedback on national strategy

14.10-14.55
Aisling Courtney
Living Donor Transplant
National Strategy Update

West Midlands
Audit & Education Event
13 July 2017

Aisling Courtney
Strategy Implementation Group
Plan

• Strategy reminder
• Latest data
• Current position
  – Commissioning
  – Donor care
  – Access to LD
    • Detail re. survey data and shared learning events
• Looking forward
What will UK LDKT look like in 2020?
The UK Living Donor Kidney Transplant program will match world class performance.
What does world class mean?

Living donor kidney transplant rates for Europe and the USA, 2015

Source: Council of Europe – Transplant Newsletter
• How is this going to be delivered?
  – Strategic Implementation Group Work streams
    • Access and Availability
    • Donor safety and welfare
    • Higher Immune risk
    • Commissioning

• Where are we aiming?
  – Living Kidney donation rate of 26 per million population by 2020
What should 2020 look like?

• The best outcome for every donor and recipient
• More successful transplants for more people
• The right transplant at the right time
• The most of every transplant opportunity, every time
• Equity of access
Number of deceased and living donors in the UK, 1 April 2007 - 31 March 2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Living donors</th>
<th>DBD donors</th>
<th>DCD donors</th>
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<tbody>
<tr>
<td>2007-2008</td>
<td>609</td>
<td>611</td>
<td>288</td>
</tr>
<tr>
<td>2008-2009</td>
<td>611</td>
<td>624</td>
<td>335</td>
</tr>
<tr>
<td>2009-2010</td>
<td>961</td>
<td>637</td>
<td>373</td>
</tr>
<tr>
<td>2010-2011</td>
<td>1062</td>
<td>652</td>
<td>436</td>
</tr>
<tr>
<td>2011-2012</td>
<td>1046</td>
<td>1055</td>
<td>507</td>
</tr>
<tr>
<td>2012-2013</td>
<td>1101</td>
<td>1148</td>
<td>540</td>
</tr>
<tr>
<td>2013-2014</td>
<td>1092</td>
<td>1078</td>
<td>510</td>
</tr>
<tr>
<td>2014-2015</td>
<td>785</td>
<td>829</td>
<td>579</td>
</tr>
<tr>
<td>2015-2016</td>
<td>780</td>
<td>858</td>
<td>584</td>
</tr>
<tr>
<td>2016-2017</td>
<td>1043</td>
<td>1046</td>
<td>652</td>
</tr>
</tbody>
</table>

Source: Transplant activity in the UK, 2016-2017, NHS Blood and Transplant
For 2017/18?

<table>
<thead>
<tr>
<th></th>
<th>14/15</th>
<th>15/16</th>
<th>16/17</th>
<th>17/18</th>
<th>18/19</th>
<th>19/20</th>
</tr>
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<tbody>
<tr>
<td>LDT nos*</td>
<td>1143</td>
<td>1223</td>
<td>1260</td>
<td>1368</td>
<td>1512</td>
<td>1728</td>
</tr>
<tr>
<td>pmp</td>
<td>18.5</td>
<td>17.3</td>
<td>16.0</td>
<td>21.0</td>
<td>23.0</td>
<td>26.0</td>
</tr>
</tbody>
</table>

2017/18 projections: 114 per month; 21.0 pmp

2016/17 Activity (pmp) 15.1

- England: 12.5 -15.9
- Wales: 16.5
- Scotland: 15.5
- Northern Ireland: 41.6
Priorities for 2016/17

• Commissioning
• Donor care
• Improving access to LDKT
  – Patient and public engagement
  – Professional engagement

• Development of the living kidney sharing schemes
Commissioning

- Collaboration with Health Departments and NHS England
  - Transition to ‘full’ funding
  - April 2017
  - Prioritise LDKT within NHSE
  - Higher profile for LDKT
  - Transplant tariff in England
  - Development and consultation on-going
Donor Care

• 10 year LDKT activity report; centre specific data
  —Published September 2016
• Donor follow-up and UK Registry
  —New pathway; electronic reporting in IT plan
• Donor Reported Outcome Measures (DROMS)
  —Questionnaire developed; for roll-out 2017
• Research
  —BOUnD: Understanding barriers and outcomes of unspecified (altruistic) kidney donation
  —ALIVE: Experiences and attitudes of donors and patients towards anonymity in LKD

Courtesy of Lisa Burnapp
Improving access to LD Tx

• UK-wide survey monkey 2015
  – Transplant centre
    • surgeon, nephrologist, LD co-ordinator
  – Referring unit nephrologist

• Sharing best practice visits 2016-17
  – share best practice
  – identify areas for improvement in each centre/region
  – develop local action plans towards achieving 2020 plan
Shared learning events

- n=26
- combination of:
  - regional events, transplant centres, referring units
  - 1 centre not visited
- Lisa Burnapp or Aisling Courtney or both
  - additional team members at 6 visits
Key (new) data

Numbers
• population served by each transplant centre
• estimate of LD rate pmp per annum per unit currently
• number of LD transplants per annum if 26 pmp by 2020

Survey response
• analyses of self-reported limitations, work-up time and processes, approach to KSS etc.

Sharing practice
Demographics

Transplant unit
- Birmingham

Referring units
- Dudley
- Heart of England
- Shrewsbury
- Stoke
- Wolverhampton

Transplant unit
- Coventry

Referring units
- Heart of England

2013-15
10 transplants from Republic of Ireland
11 transplants from other units
### Renal Registry 2014

<table>
<thead>
<tr>
<th></th>
<th>Population (million)</th>
<th>Incident RRT</th>
<th>Prevalent dialysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>no.</td>
<td>rate pmp</td>
</tr>
<tr>
<td>Birmingham</td>
<td>1.70</td>
<td>191</td>
<td>112</td>
</tr>
<tr>
<td>Dudley</td>
<td>0.44</td>
<td>47</td>
<td>106</td>
</tr>
<tr>
<td>*Heart of Eng</td>
<td>0.74</td>
<td>99</td>
<td>134</td>
</tr>
<tr>
<td>Shrewsbury</td>
<td>0.50</td>
<td>61</td>
<td>122</td>
</tr>
<tr>
<td>Stoke</td>
<td>0.89</td>
<td>100</td>
<td>112</td>
</tr>
<tr>
<td>Wolverhampton</td>
<td>0.67</td>
<td>88</td>
<td>132</td>
</tr>
</tbody>
</table>

*Heart of England: 30% Coventry
Demographics

- Population served: 4.5 million (7.0% UK population)
- Dialysis population: 2523
- Ethnicity: 74% White, 18% S Asian
  (Shrewsbury, Stoke 95%, Dudley 87% White)
# Renal Registry 2014

<table>
<thead>
<tr>
<th>Area</th>
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<th>Incident RRT</th>
<th>Prevalent dialysis</th>
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<td>no.</td>
<td>rate pmp</td>
</tr>
<tr>
<td>Coventry</td>
<td>0.89</td>
<td>96</td>
<td>108</td>
</tr>
</tbody>
</table>
Demographics

• Population served 1.14 million (1.8% UK population)
• Dialysis population 628
• Ethnicity 76% White 18% Asian
Number of living kidney transplants in 2015/16 by transplant centre.
Birmingham

2016/17
- 56 LD
- 12.4 pmp

2020
- X? LD
- 26 pmp

n=117

If population increases by 2020 then will be >117
10 adult LD transplants every month in Birmingham
Can this be achieved?
How?
Coventry

2016/17

• 22 LD
• 19.3 pmp

2020

• X? LD
• 26 pmp

n=30

If population increases by 2020
then will be >30
3 LD transplants every month in Coventry
Can this be achieved?
How?
What do you think?

Survey monkey

• Transplant unit
  – surgeon
  – nephrologist
  – co-ordinator

• Referring units
  – Dudley
  – Heart of England
  – Shrewsbury
  – Stoke
  – Wolverhampton

• Transplant unit
  – surgeon
  – nephrologist
  – co-ordinator

• Referring units
  – Heart of Eng
Proportion of kidney transplants (DBD, DCD, Living) in 2014 by centre
LD programme limited

Birmingham
• Number unsuitable x2
• Resources x2
• Number volunteering
• Differing priorities

Coventry
• Number volunteering
• Number unsuitable

Referring units
• Number volunteering (2/2)
• Number unsuitable (1/2)

Referring units
• Number volunteering
• Number unsuitable
Unsuitable

UK (after completing work-up)

- Birmingham
  - 40-50%

- Coventry
  - 20-30%

Referring units
- 30-40% unsuitable
Are all considered unsuitable really unsuitable? Is there a way to confirm this?

2nd opinion “occasionally” or “never” sought
Proportion of pre-emptive living kidney transplants in 2014, by centre

3 transplant centres had a lower proportion of pre-emptive LD transplants in 2014

Excludes 64 patients with unknown dialysis status at transplant.
Transplant first?

**Birmingham**
preparation for dialysis rather than transplant first (2/3)

**Coventry**
preparation for transplant first
Work-up

UK (complete <18 weeks)

- Birmingham: 20-40%
- Coventry: 60-80%
Donor path

• Where is the time taken? referring unit or transplant unit
  Disproportionally in transplant centre

Is this appropriate?
Can this be streamlined?
Is there a clear pathway for all referring units?
## Kidney Sharing Scheme

<table>
<thead>
<tr>
<th>Transplant units</th>
<th>Referring units</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Negative</td>
<td>• Neutral</td>
</tr>
<tr>
<td>• Positive</td>
<td>• Positive</td>
</tr>
</tbody>
</table>

**Reasons**

• Too few proceed
Kidney Sharing Scheme

Figure 5.3  Number of patients included in matching runs, 1 April 2011 - 31 March 2017

*Guy’s transplant team routinely carry out transplants at GOSH

<table>
<thead>
<tr>
<th>Centre</th>
<th>Number of pairs</th>
<th>HLAi</th>
<th>ABOi</th>
<th>HLAi and ABOi</th>
<th>Compatible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belfast</td>
<td>131</td>
<td>62</td>
<td>46</td>
<td>9</td>
<td>14</td>
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<td>83</td>
<td>37</td>
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<td>15</td>
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<td>27</td>
<td>4</td>
<td>13</td>
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<tr>
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<td>18</td>
<td>3</td>
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<tr>
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<td>72</td>
<td>47</td>
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<td>11</td>
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<tr>
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<td>23</td>
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<tr>
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<td>38</td>
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<td>0</td>
</tr>
<tr>
<td>GOSH*</td>
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<td>4</td>
<td>4</td>
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<td>0</td>
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<tr>
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<td>58</td>
<td>26</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
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<td>19</td>
<td>10</td>
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<td>4</td>
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<td>27</td>
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<td>9</td>
<td>7</td>
<td>6</td>
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<tr>
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<td>44</td>
<td>35</td>
<td>22</td>
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<td>17</td>
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<tr>
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<td>7</td>
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<tr>
<td>The Royal Free</td>
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<td>5</td>
</tr>
<tr>
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<td>22</td>
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<tr>
<td>UK</td>
<td>1448</td>
<td>695</td>
<td>463</td>
<td>224</td>
<td>66</td>
</tr>
</tbody>
</table>
Proportion transplanted via KSS (to end 2015)

Mean percentage transplanted 30%
NDADs in 2014 by centre

In total, 110 NDADs
Altruistic donors

Figure 5.9  Altruistic donor kidney transplants in the UK by type and donor centre, 1 April 2013 - 31 March 2017

Birmingham

2016/17

• 56 LD
• 12.4 pmp

2020

• >117 LD
• 26 pmp

Are 10 adult living donors per month every month possible?
Are 3 living donors per month every month possible?
<table>
<thead>
<tr>
<th></th>
<th>Population (million)</th>
<th>2013-2015</th>
<th>If 26 pmp pa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>total</td>
<td>p.a.</td>
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<tr>
<td>Birmingham</td>
<td>1.70</td>
<td>94*</td>
<td>31.3</td>
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<tr>
<td>Dudley</td>
<td>0.44</td>
<td>16</td>
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<tr>
<td>Heart of Eng</td>
<td>0.74</td>
<td>36</td>
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<tr>
<td>Shrewsbury</td>
<td>0.50</td>
<td>19</td>
<td>6.3</td>
</tr>
<tr>
<td>Stoke</td>
<td>0.89</td>
<td>33</td>
<td>11.0</td>
</tr>
<tr>
<td>Wolverhampton</td>
<td>0.67</td>
<td>19</td>
<td>6.3</td>
</tr>
</tbody>
</table>

*Adult only

| Coventry    | 0.89                 | 49        | 16.3        | 18.4        | 23   |
Personnel

- most profitable when all members of transplant team present
  - surgeons, nephrologists, co-ordinators, nurses, managers, referring centre staff

- some centres limited representation
  - no medical staff
  - no nephrologists
  - no referring unit staff

- occasional unit with a dominant person who primarily determines direct of transplant unit
Processes

• substantial variation in practice between units

• reflective of:
  – local geography and logistics
  – tradition
  – attitude to living donation
Philosophy

• belief determines behaviour
  – some unexpected beliefs
    • living donation is not necessarily better than deceased donor transplant
    • living donation is associated with significant donor risk
• variation in approach
  – some centres appear to make it difficult to donate
    • as ‘proof’ that they really want to do it
  – some centres make it ‘easy’ for people to donate
KSS

• difference in use of KSS
  – number of patients entered
  – entry of compatible pairs
  – proportion of patients entered that are transplant via the KSS
Proposals

• establishment of lead nephrologist in each referring and each transplant unit
• incorporation of population served and adult LD rate pmp per transplant unit into NHSBT annual centre specific LD report
• non-directed altruistic donors automatically enter the KSS
Lead nephrologist for transplantation
27th June 2017

Dear Colleague,

Re: Living Donor Kidney Transplantation 2020

Thank you for your continued leadership in helping to optimise the Living Donor kidney transplant service in your unit which is contributing to the development of the best possible UK living donor programme, consistent with the goals set out in the LDKT 2020 strategy.

Lisa Burnapp and Aisling Courtney have now visited almost every transplant unit and many referring units to engage with colleagues, gain insight into current practice and to identify opportunities for shared learning that will improve and support best practice.

One of the key recommendations from colleagues in many units is to enhance clinical leadership for living donor kidney transplantation within nephrology practice in each transplant centre and referring unit. The aim is to create a network of nephrology champions, who will provide local direction and focus for the programme alongside lead surgeons and living donor coordinators.

Therefore we are writing to ask you to identify a nephrologist in your unit who would be willing to take on the role of Nephrology lead for Living Donation.
We look forward to hearing from you and welcome your support.

With kind regards.

Yours faithfully,

Professor John Forsythe
Medical Director
Organ Donation and Transplantation
NHS Blood and Transplant

Lisa Burnapp
Lead Nurse Living Donation
NHS Blood and Transplant

Lorna Marson
President
British Transplantation Society

Donal O’Donoghue
Medical Director
Greater Manchester
Academic Health Science Network
Lead nephrologist for transplantation

• “Network of nephrology champions”
• Clinical leadership
• Two-way exchange of information / data
• Support with regional / national events

NHSBT event London 6 October
KSS and antibody incompatible transplants
LD rate pmp 2016/17
National Kidney Federation Press release 11 July

• “One step forward, but one step backwards - with organ donation in the UK

• The figures show a record number of organ donations after death in the year 2016/17 but a continued drop in the number of living donations

• we are very concerned about the continued reduction in living donation”
Altruistic donors & KSS
Altruistic Unspecified Kidney Donors

Donation type
- Extra transplants
- Into chain
- Direct to list

By December 2016:
- 548 Donations
- 666 Transplants

Courtesy of Lisa Burnapp
Goals

• Maximise patient and transplant benefit
• Best use of donors and donated organs
• Minimise delays
Patient and Public Engagement

• Campaigns and messaging
  – 500th NDAD; Valentine’s campaign; Scotland
• Information and resources
  – Website resources; banners; blood donation pilot; on-line films
• Expression of interest register
  – Non-directed donors; launch July 2017
• BAME communities
  – Ace LDKT (home education); NBTA LTI
Films: ‘Let’s talk about....

- Living donor kidney transplantation (core film)
- Living kidney donor assessment
- Living kidney donor surgery
- Long term health in the living kidney donor
- Living kidney sharing schemes
- Donating a kidney to someone you don’t know
- Cultural considerations in living donor kidney transplantation
- Practical considerations in living donor kidney transplantation

http://transplant.tv/themes/

Courtesy of Lisa Burnapp
2017/18

- Tariff in England; engagement with all 4 health departments
- Embed nephrology lead network; KQUiP ‘transplant first’
- Develop comprehensive pmp data
- Develop further donor & recipient resources
- Share learning from BAME engagement initiatives
- Develop the kidney sharing schemes
- Embed Donor Reported Outcome Measures

- Make it easy for people to donate