

# Organ Donation and Transplantation in General Practice

## Abstract:

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## Abstract

Raising public awareness of organ donation is high on the national agenda, but the magnitude of the challenge is not well clarified. We investigated the attitudes and experience of general practitioners (GPs) regarding organ donation. A survey of 200 GPs working in Ireland revealed that a minority provided donor cards (38%) or displayed information regarding organ donation (28.2%). Although 81.3% felt comfortable discussing organ donation, just 4.8% broached the subject with their patients or asked them to discuss the issue with their families. 88.7% of GPs could not remember any instance of a patient asking for counselling regarding organ donation in the past 3 months. We found that 31.7%, 24.1% and 34.4% felt informed to advise patients on organ procurement, living donation or immunosuppression medications, respectively. We identified a lack of dialogue and unfamiliarity in primary healthcare regarding organ donation, which may be targeted to increase organ donation rates.

## Introduction

Renal transplantation is well established as the optimal therapy for end-stage kidney disease in terms of long-term clinical and healthcare economic outcomes<sup>1,2</sup>. With an increasing demand for renal transplantation leading to an escalating deceased donor waiting list, we are faced with a significant national problem to firstly raise awareness of the acute need for increased deceased organ donors in the general population, and secondly to restructure our system of organ procurement services to maximise the rates of donation in our critical care centres. Traditionally, the majority of deceased donors have been victims of road traffic accidents and intracranial events, but with improving road safety and advances in medical therapies these donors have not been as abundant.

Hence it has become even more important to convert opportunities for organ procurement when they arise, as difficult as the circumstances may be. In addition to innovative strategies being explored in this country to increase the number of transplantations being carried out, such as paired kidney donation (in association with our UK colleagues), donation after cardiac death (DCD) and use of extended criteria donors, key to a successful transplantation service must be to tackle awareness in the general population, by engaging with patients in the primary healthcare setting to raise this important issue, as well as through mass media programmes. To date there is little known, either nationally or internationally, about the role of the general practitioners (GPs) in the campaign to raise public awareness of organ donation through health promotion, or what the attitudes of GPs are to their possible role and how confident they believe they are to perform such a role. We sought to investigate the attitudes and experience of GPs in the Republic of Ireland in terms of organ transplantation and donation, and their role in raising awareness amongst the public.

## Methods

We identified 200 GPs from the Irish College of General Practitioners database and, following ethical approval, conducted an anonymous postal questionnaire. The questionnaire contained 9 items including provision of information by GP practices about the need for organ donation, provision of organ donor cards in GP surgeries, GP's individual practice regarding discussion of organ donation, self reported ability and confidence to offer information regarding procedures surrounding organ retrieval, living donor transplantation and immunosuppression and whether GPs themselves carried organ donor cards.

## Results

We received 125 return questionnaires, representing a 62.5% response rate. We found that 62% (n=77) of GP practices did not provide organ donor cards for the general public in the reception/waiting area, with 28.2% (n=35) having information displayed regarding the need for organ donors. Although 81.3% (n=100) of GPs felt comfortable discussing organ donation with their patients, just 4.8% (n=6) stated that they opportunistically broach the subject of organ donation with patients who attended their clinics or asked them to discuss the issue with their families. From the past 3 months consultations, 88.7% (n=110) of GPs could not remember any instance of a patient asking for counselling or information regarding organ donation. When asked if each felt adequately well informed to offer patients advice on the procedures surrounding organ retrieval and about issues surrounding living donation, 31.7% (n=39) and 24.1% (n=30) replied that they did, respectively. Regarding immunosuppressive medications and their side-effects, 34.4% (n=42) of GPs felt adequately informed to offer patients information. 52% of eligible GPs carried an organ donor card (n=62).

## Discussion

This study suggests there is a paucity of dialogue in the primary healthcare setting in Ireland regarding organ donation, a national issue that is not well quantified, and a problem mirrored nationally in many other countries. The prevalence of end-stage kidney disease (ESKD) in the Republic of Ireland continues to grow annually, with latest figures from the National Renal Office showing 820 patients per million population (p.m.p.) affected, and 372 incident patients in 2010<sup>6</sup>. The majority of these incident patients are treated by haemodialysis (83%), with a small minority receiving a pre-emptive transplant (2.5%). Overall, 52% of the ESKD population has a functioning renal transplant, the optimal therapy for ESKD. In recent years there has been a significant increase in the waiting list for potential recipients of a deceased donor renal transplant to over 600 patients, with 2010 seeing the worst decline in organ donation on record in Ireland; 98 deceased donor renal transplants in 2010 compared to 172 in 2009. Traditionally, Ireland has enjoyed a generous deceased organ donation rate, but at 12.6 p.m.p. in 2010 this ranked outside the top twenty European countries

In European countries such as Spain and Austria, high deceased donor rates (32 p.m.p. and 23.3p.m.p. in 2010, respectively) have been previously attributed to an opt-out<sup>5</sup> legislation. There is some evidence that this legislation may lead to increased donor rates<sup>5</sup>, but due to factors such as family wishes, cultural beliefs and infrastructural arrangement it may not necessarily translate into increased deceased organ donor rates. The legislation has not been implemented against a family's wishes and has not produced similar results in all countries, such as Sweden with a deceased donor rate of 12.6 p.m.p in 2010 despite an opt-out<sup>5</sup> legislation. The widely believed key determinants in the success of these countries are a strong awareness engrained in the public consciousness of their duty and responsibility to donate organs and also largely due to a system of dedicated co-ordinators at a local level in the critical care setting, who are trained and geared specifically to approach family members to obtain consent for organ procurement, and have been shown to increase organ procurement rates<sup>9</sup>.

One of the key areas in Ireland may be the education of the general population at the frontline of healthcare, as well as through mainstream media outlets. Currently available limited evidence from Spain suggests that there is a lack of information being transmitted about organ donation in the setting of primary healthcare, in line with our findings in Ireland, but that GPs do have a very favourable attitude towards organ donation and that when discussed in this setting it may form strong positive attitudes in potential donors<sup>10</sup>. Meaningful development in this area will require focused and continuing education of primary healthcare providers to impart them with the necessary tools to relay the importance of organ donation, given that even healthcare workers in the domain of transplant centres and critical care have demonstrated insufficient knowledge in some cases<sup>11</sup>. The majority of GPs agree that discussion of organ donation is within their scope of practice and formal education sessions<sup>14</sup> with GPs will make it more likely for GPs to discuss organ donation with their patients<sup>14</sup>. With the recent introduction of the National Office for Organ Donation and Transplantation, as well as a dedicated living donor programme at the National Renal Transplant Centre, it is hoped that we can begin to cultivate public awareness. There is some evidence in the literature supporting increasing deceased organ donation through national education programmes<sup>15</sup>. In the UK, the national transplantation registry has currently captured 29% of the population, which, although under-represents<sup>16</sup> the widespread support for organ donation in general populations in many surveys internationally<sup>17</sup> and does not have a legal standing, does serve as a focal point to advertise the issue of organ donation, allows for quantification and tracking of the progress being made in the campaign and provokes some debate in the national arena. Other avenues, such as the possible evolution of paired donor exchange programme, either on a national basis or more likely in conjunction with UK centres, and use of organs from non-heart beating donors (donation after cardiac death)<sup>17</sup>, which provides the UK with just over one third (36.9%) of their deceased organ donations at present<sup>18</sup>, will also need to be considered.

In conclusion, there is a lack of focus and detailed knowledge on organ donation and transplantation at the level of primary healthcare, which may likely be representative of the national attitude towards organ donation. It is going to take a significant paradigm shift and investment in education for both healthcare providers and the general population in order for Ireland to match the deceased organ donation rates of the top European countries, and ensure that more of our patients receive the optimal treatment for ESKD. Consistent public awareness programs, backed up by an informed

primary care community who feel at ease discussing and promoting the fundamental principles of organ donation with potential donors and their families are critical parts of a multifaceted program aimed at improving organ donation rates in this country.

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#### References

1. Schnuelle P, Lorenz D, Van Der Woude FJ. Impact of renal cadaveric transplantation on survival in end-stage renal failure: evidence for reduced mortality risk compared with hemodialysis during long-term follow-up. *J Am Soc Nephrol.* 1998; 9:2135-41.
2. Perovic S, Jankovic S. Renal transplantation vs hemodialysis: cost-effectiveness analysis. *Vojnosanit Pregl.* 2009; 66:639-44.
3. Albright CL, Glanz K, Wong L, et al. Knowledge and attitudes about deceased donor organ donation in Filipinos: a qualitative assessment. *Transplant Proc.* 2005; 37:4153-8.
4. Alghanim SA. Knowledge and attitudes toward organ donation: a community-based study comparing rural and urban populations. *Saudi J Kidney Dis Transpl.* 2010; 21:23-30.
5. Arjmand B, Aghayan SH, Goodarzi P, et al. Knowledge and attitude of donor cardholders toward organ and tissue donation and transplantation in an Iranian tissue bank: a case-control study. *Transplant Proc.* 2009; 41:2715-7.
6. Health Service Executive, National Renal Office. Epidemiology of ESKD in Adults in Ireland 2010.
7. Council of Europe. International Figures on Donation and Transplantation, 2010.
8. Johnson EJ, Goldstein D. Medicine. Do defaults save lives? *Science.* 2003; 302:1338-9.
9. Shafer TJ, Ehrle RN, Davis KD, Durand RE, Holtzman SM, Van Buren CT, Crafts NJ, Decker PJ. Increasing organ recovery from level I trauma centers: the in-house coordinator intervention. *Prog Transplant.* 2004; 14:250-63.
10. Conesa Bernal C, Ríos Zambudio A, Ramírez Romero P et al. Importance of primary health-care professionals in the sanitary education about organ donation. *Aten Primaria.* 2004; 34:528-33.
11. Conesa C, Ríos A, Ramírez P et al. The primary care physician faced with organ donation: attitudinal study in South-Eastern Spain. *Ups J Med Sci.* 2006; 111:353-9.
12. Pont Castellana T, Masnou Burrall N, Gracia Gonzalo RM, et al. Health care professionals: what do they know about organ donation? *Prog Transplant.* 2008; 18:141-5.
13. The Gallup Organization. The American Public's Attitude Toward Organ Donation and Transplantation. Gallup Organization, Princeton, NJ, 1993.
14. Thornton JD, Curtis JR, Allen MD. Primary care physicians' attitudes and practices regarding discussing organ donation with their patients. *J Natl Med Assoc.* 2010; 102:52-8.
15. Uriarte RD, Amarillo ML, Ampil RS et al. A national program toward improving renal health: advancing organ donation awareness. *Transplant Proc.* 2010; 42:121-3.
16. Rodríguez-Villar C, Paredes D, Ruiz A, et al. Attitude of health professionals toward cadaveric tissue donation. *Transplant Proc.* 2009; 41:2064-6.
17. National Health Service. Transplant activity in the UK: Activity Report 2010/2011.