

Ebola Virus Disease – An Opportunity in Crisis?

The recent outbreak of Ebola virus disease (EVD) in West Africa has brought issues of emergency planning and preparedness for emerging viral threats, including Ebola, pandemic influenza and MERS-CoV into focus here in Ireland. Building on existing National Guidelines for Viral Haemorrhagic Fever,¹ this current outbreak has necessitated the development of a range of national management protocols for specific settings. These protocols have addressed presentation, detection, infection control, clinical assessment, case management, laboratory testing and transfer arrangements to the National Isolation Unit at the Mater hospital as well as contact management in healthcare and non-healthcare settings. This work has been coordinated nationally in the HSE through the Health Protection Surveillance Centre (HPSC) and its Scientific Advisory Committee on EVD and the HSE Emerging Viral Threats (EVT) Committee, regionally through Departments of Public Health, and across government via the Department of Health-led EVD Coordinating Committee. It has involved the concerted efforts of multiple different stakeholders, both within and beyond traditional healthcare settings.

In the absence of a confirmed case of Ebola in Ireland thus far, and with the likelihood of that event receding, as numbers of new cases in West Africa decrease substantially, it could be argued that the substantial time and effort devoted to this issue since August 2014 has been misplaced. It may equally be argued, however, that this preparatory work and the experiences so gained are of enormous value, and can be utilised to advance future public health efforts and promulgate understanding across a range of disciplines and settings. This latter argument is easily made with regard to similar infectious threats. Preparatory work for Ebola has mobilised health services, and those who work in partnership with those services, to evaluate their readiness for disease outbreaks in Ireland. Ports and airports, the customs and prison services, educational institutions and social care organisations have had to consider their role in working with Departments of Public Health and the HSE in containing and managing potential cases of Ebola and other communicable diseases. HSE Emergency Planning, in collaboration with Public Health and the acute hospital services, has organised desktop training and practical exercises; these have promoted collaboration between stakeholders and have been carried out across the country, including at our ports and airports. The importance of the Mater Hospital National Isolation Unit, and its relationship with receiving hospitals, has been highlighted, and the roles of General Practitioners, the National Ambulance Service, Dublin Fire Brigade and An Garda Síochána have been

clarified. The HSE EVT committee has coordinated significant preparedness activities in the acute receiving hospitals.

The need for inter-departmental and inter-agency collaboration in preparing for Ebola has mandated stakeholders from diverse policy backgrounds, with often competing strategic objectives, to work together. This building of new and strengthening of old relationships has presented an opportunity to promote ongoing collaboration between these stakeholders. And, while the benefits of capitalising on this opportunity are obvious with respect to the management of infectious disease as discussed above, they also hold relevance for our approach to non-communicable illnesses and their prevention. As noted in the 2013 roadmap to improving the health of the population in Ontario, Canada, "effective use of public health expertise and better collaboration with both the health and non-health sectors could lead to better health at lower costs....the public health sector is uniquely positioned to create the bridge between the health sector and all other sectors that influence health."²

Our own roadmap for the prevention of non-communicable disease, Healthy Ireland, recognises the need for this bridge and mandates the adoption of a 'health in all policies' (HiAP) approach, one which places the public's health at the centre of decision making across sectors. At issue now is whether all sectors of government and society as a whole can be convinced of the integral role which they must play in moving from rhetoric to action. Recent experience with Ebola preparedness suggests that, when appropriately motivated, stakeholders in Ireland can overcome the tradition of siloed thinking which has hampered cross-sectoral cooperation and development in the past. The lessons learnt and goodwill fostered through this process must now be harnessed to drive greater consideration of the public's health and its determinants at all levels of Irish society.

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Expectations of General Practitioners for Patients Undergoing Elective Total Knee Arthroplasty

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Abstract

Most patients undergoing total knee arthroplasty (TKA) in Ireland are referred to orthopaedic services by their general practitioners (GPs). We aimed to evaluate Irish GPs' expectations for their patients' perioperative experience and post-operative return to function. A questionnaire was mailed to 350 GPs in all provinces. This included questions relating to GPs' expectations for their patients and their knowledge and sources of information on TKA. 111 completed questionnaires were returned (response rate 31.7%). Overall expectations for functional and psychological outcomes were high, especially regarding pain relief (108 (97.3%) expected relief from most or all pre-operative pain), mobility (108 (97.3%) expected patients to walk medium or long distances) and psychological wellbeing (95 (85.5%) considered this somewhat or very important). Only 22 (20.2%) reported receiving any relevant information or training within the previous year. Overall expectations for functional outcomes were high, however greater communication between surgeons and GPs may improve GP information.

Introduction

The number of total knee arthroplasty (TKA) procedures performed has shown a steady increase in recent years in countries maintaining national joint registry data.¹⁻³ This is likely due to aging populations with greater functional demands.⁴ Although the absence of an effective national joint registry in Ireland does not allow direct comparison, anecdotal evidence is suggestive of a consistent pattern here.⁵ Modern era patients have high expectations of functional outcomes and perioperative experience and recent literature includes several studies assessing patients' expectations regarding TKA and patient satisfaction with outcomes postoperatively. Despite technical advances, only 81-89% of patients are satisfied with the final result in TKA.⁶⁻⁸ Many authors focus on the impact of patients' preoperative expectations on their satisfaction with the final outcomes and a correlation between fulfillment of expectations and patient satisfaction has been demonstrated (though not in all published studies).⁸⁻¹⁵ Some of the published literature has focused mainly on evaluating the expectations of orthopaedic surgeons for their patients undergoing total knee arthroplasty and on the relative concordance or discordance between the surgeons' expectations and those of the patients. In general, these studies have not shown surgeons' expectations or satisfaction with outcomes to accurately reflect the patient's satisfaction postoperatively.¹⁶⁻²¹

In Ireland, the majority of patients access orthopaedic surgeons via referral from their general practitioner (GP). As the patient's GP is the first and most frequent point of contact with health services for most people, it is likely that he or she may have some influence on the patient's perception and expectations surrounding knee arthroplasty. Therefore the GP's own understanding and expectations for the patient are directly relevant. However, at the time of writing, there are no published studies directly evaluating either GPs' expectations or their influence on patient expectations. In this study we aimed to partially address this deficit by evaluating GPs' expectations of their patients' perioperative experience and return to function following elective total knee arthroplasty procedures.

Methods

A 57-item questionnaire was developed to include some basic demographic data (without identifying information), a series of questions regarding GPs' expectations for their patients' experiences and outcomes and a small number of questions regarding GPs' knowledge and sources of information on TKA. A number of questions pertaining to expectations regarding pain, physical function and psychological wellbeing were identical to those used in the Hospital for Special Surgery (HSS) Knee Replacement Expectations Survey.²² This is a 17-item self-administered survey that has been validated for use in patients undergoing total knee arthroplasty and these questions were chosen as they are frequently used to evaluate patients' expectations when undergoing TKA. A total of 350 questionnaires were mailed with a very brief covering note and an included prepaid return envelope to GPs in each of the four Irish provinces. Standard mail was chosen as the medium based on consultation with a representative of the Irish College of General Practitioners (ICGP) who advised

that they generally receive a higher response rate from their members when using standard mail compared to email or internet-based surveys.

Results

A total of 111 completed questionnaires were returned, giving a response rate of 31.7%. Six respondents (5.4%) did not complete the demographic questions, however as their questionnaires were otherwise completed in full their responses to the remaining questions were included in the analysis.

GP Demographics

A majority of respondents (71 (67.6%)) were male and most (85 (79.5%)) had been in practice for 15 years or more. Only 10 (9%) respondents had been established in practice for 5 years or less. A small majority (56 (51.9%)) were based in a large town or city while the remainder worked in a practice in a small town or rural area. The size of the practices surveyed was variable.

Waiting times

Respondents had low expectations regarding waiting times for publicly funding patients, with the vast majority anticipating waiting times of 1-2 years (42 (37.8%)) or longer (52 (46.8%)) from the time of a routine referral until surgery. Most expected a considerably shorter waiting period for private patients, with 55 (49.5%) anticipating surgery within 3 months of a routine referral and 41 (36.9%) within a 4 to 6 month period.

Functional outcomes

Overall expectations for patients' functional and psychological outcomes were high, in particular regarding pain relief, ability to walk and effect on psychological well-being. 109 (98.2%) of GPs rated pain relief as a very important or somewhat important outcome with 108 (97.3%) expecting patients to obtain relief from most or all pain compared to their pre-operative condition. Improvements in knee stability, knee mobility and ability to perform activities of daily living were also regarded as important while improvements in the ability to squat, kneel or run were regarded as less important. A large proportion of respondents reported an improvement in psychological well-being following knee replacement as very important (77 (69.1%)) or somewhat important (29 (26.4%)) outcome. The responses to the questions regarding functional outcome are summarised in figure 1.

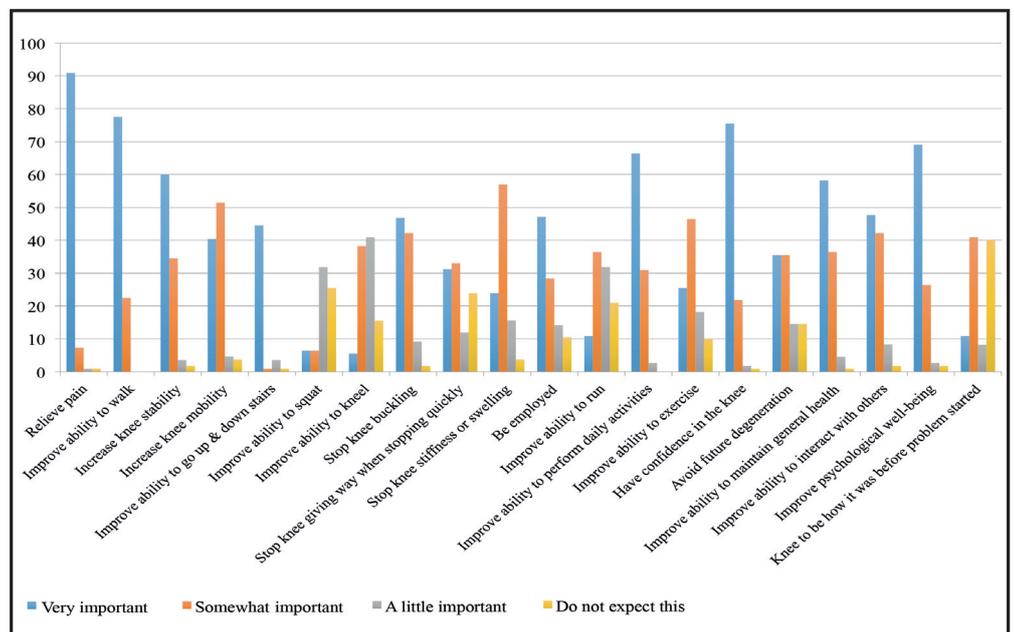


Figure 1 GP expectations regarding functional outcomes for patients undergoing elective TKA (numbers expressed as percentages)

Perioperative and postoperative experience

Most GPs surveyed anticipated a hospital stay of 3-4 days (46 (41.4%)) or 5-6 days (47 (42.3%)) with only a minority expecting a shorter (5 (4.5%)) or longer (13 (11.7%)) period of hospitalisation for a routine elective TKA procedure. 24 (22.1%) would expect their patient to have a general anaesthetic, 65 (58.7%) a spinal anaesthetic and 21 (19.3%) didn't know what type of anaesthetic was likely to be used. A majority of GPs (60 (54.2%)) did not expect their patients to be able to fully weight bear until 4 or more days post-operatively while most thought that patients should be able to drive again at 1-2 months (43 (38.5%)) or 2-3 months (42 (37.6%)) after knee replacement. Expectations regarding time before returning to work were more variable. Most (70 (69.2%)) reported an appropriate level of involvement with the orthopaedic service post-operatively. However 33 respondents (29.9%) felt that more involvement post-operatively was desirable while 1 (0.9%) would prefer less post-operative involvement with the orthopaedic services. Desired information in the post-operative discharge letter included details of the planned follow-up (55.6%), post-operative anticoagulation instructions (33.7%), any peri-operative complications (48.5%) and the appropriate time for suture removal (44.8%). Only 6 respondents (5.4%) were interested in details of the procedure itself.

Table 1: GPs' perceptions of the risks associated with total knee replacement

Risk of death during or after TKA	<0.5%	0.5-1%	1-2%	3-5%	>5%
	44.4%	32.4%	19.4%	2.8%	0.9%
Risk of wound infection	<0.5%	0.5-1%	1-2%	3-5%	>5%
	3.7%	26.6%	37.6%	19.3%	12.8%
Risk of DVT after TKA	<0.5%	0.5-1%	1-2%	3-5%	>5%
	7.3%	17.4%	28.4%	33.9%	12.8%
Risk of dislocation after TKA	<0.5%	0.5-1%	1-2%	3-5%	>5%
	23.9%	30.3%	29.4%	13.8%	2.8%

Risks and complications

A majority of 91 (82.4%) respondents thought that patients were adequately informed pre-operatively of the risks associated with knee replacement surgery. The GPs own perceptions of these risks are summarised in Table 1.

GP information and education regarding knee arthroplasty

22 (20.2%) reported receiving information or training in relation to TKA during the past year while the remaining 89 respondents (79.8%) said they had received no information during the previous year. Sources of information were primarily orthopaedic surgeons and courses or training days, with 54% regarding orthopaedic surgeons as the source of the most relevant information.

Discussion

To our knowledge, this study is the first to evaluate the expectations of general practitioners for patients undergoing elective TKA and it produces several interesting findings. A large majority of GPs surveyed had high expectations for patient outcomes, particularly in relation to obtaining relief from pain, improving ability to walk and improving ability to perform activities of daily living (ADLs). This is a largely unsurprising finding, given the nature of the procedure involved. However, a large number (106 (95.5%)) also ranked an improvement in psychological wellbeing as an important or somewhat important expectation following TKA. This is perhaps a factor which many orthopaedic surgeons do not routinely consider when evaluating patients for a prospective TKA.

Patient satisfaction with outcomes following surgical interventions is gaining greater attention in recent times, particularly with advent of frequent use of patient reported outcome measures (PROMs). A recent cross-sectional study in Ontario found that 19% of patients undergoing total knee arthroplasty were not satisfied

with the outcome at one year post-operatively and the strongest predictors of dissatisfaction after primary knee arthroplasty were a failure to meet pre-operative expectations, a low 1-year WOMAC (Western Ontario and McMaster University Arthritis Index) score, preoperative pain at rest and a post-operative complication requiring hospital readmission.²³ This is consistent with other studies showing satisfaction rates of 81-89%.⁶⁻⁸ Many GPs have a longstanding relationship with their patients both before and after TKA, and thus are in a unique position to modify or influence patient expectations. Therefore the GP's own knowledge and expectations regarding the process (including factors such as the likely recovery period and limitations post-operatively) are important in ensuring that patient expectations pre-operatively are realistic and well-informed. In this study, GP expectations regarding the logistics of perioperative care including duration of surgery and expected length of hospital stay were largely consistent with usual practice, however knowledge of factors such as the time to post-operative weight bearing were very variable. Clearly the orthopaedic services also have a major role to play in this respect, however it is likely that optimal management of patient expectations and education is attained when both the patient's GP and orthopaedic surgeon are consistent in the type of information given. To this end, good communication and engagement between orthopaedic and primary care services is vital to maximise patient care and satisfaction. Areas of communication which were particularly important to GPs in this study were items normally included in hospital discharge letters such as information regarding planned follow-up with the orthopaedic team and details of any peri-operative complications. However, it is also important for surgeons to ensure adequate pre-operative communication with the patient's GP so that he/she is well briefed regarding the plan for his/her patient.

It is noteworthy that approximately one fifth of respondents did not feel that patients were adequately informed of the risks pre-operatively. This suggests that there may be significant scope for better counselling regarding risks and complications of surgery. While this is primarily the responsibility of the operating surgeon, adequate communication with GPs can help reinforce this information. Given the increasing number of patients undergoing TKA, most general practices would encounter many patients both pre- and post-operatively. It is a particular concern therefore that in this study only 22 (20.2%) of the respondents reported receiving any information regarding TKA within the previous year. Of those who had received information, the source of most relevant information was an orthopaedic surgeon (as reported by 54%), although the internet and courses or training days were also contributory. This is suggestive of a potential benefit to be gained by greater engagement and collaboration between orthopaedic surgeons and general practitioners, particularly in relation to ongoing training and provision of up to date information. We would suggest that further research to evaluate the extent of the GP's influence on expectations of patients undergoing arthroplasty procedures may be beneficial. There is currently a dearth of published evidence in this area despite being a major part of managing patient expectations appropriately.

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Pattern of Change in Renal Function Following Radical Nephrectomy for Renal Cell Carcinoma

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Abstract

Radical nephrectomy (RN) is an independent risk factor for the development of chronic kidney disease (CKD) in those with renal cell carcinoma (RCC). We aimed to examine the pattern of change in post-operative renal function in patients who underwent RN for RCC over a 3 year period at our institution. We performed a retrospective review of histological and biochemical findings in patients undergoing RN for RCC over a 38 month period. Estimated glomerular filtration rate (eGFR) was recorded pre- and post-operatively and at follow-up. We analysed data on 131 patients (median follow-up 24 months). The proportion of patients with advanced CKD increased significantly at follow-up with 48 (85.7%) patients, classified as having stage 2 CKD pre-operatively, being re-classified as stage 3-5. Mean eGFR was significantly lower pre-operatively (76.6 mL/min/1.73 m²) compared to hospital discharge (61 mL/min/1.73 m², $p < 0.001$) and follow-up (55.5 mL/min/1.73 m², $p < 0.001$). Those with pT1 tumours sustained a significantly greater decline in eGFR compared to other stages. In conclusion, patients with pT1a and pT1b tumours sustain a disproportionate decline in renal function and may benefit the most from NSS.

Introduction

Renal cell carcinoma (RCC) is the 7th most common cancer diagnosed in Ireland and is the 10th most common cause of solid-organ cancer death¹. Recent reports have identified an average of 341 new cases each year in Ireland. Rates of diagnosis have been steadily rising over the last decade due to increased use of abdominal radiological imaging and incidental "pick-ups", with a rise of 3.0-3.5% per annum being recorded annually². The most significant increase has been noted in T1 (TNM classification system, AJCC, 2010) disease, which accounted for 5% of all cases in 1994-1998, but now accounts for 37% of new diagnoses². This trend is mirrored internationally with renal tumour size at presentation steadily and consistently decreasing³. T1 disease is associated with a 5 year survival of 81%, as compared to 53% and 8% for T3 and T4 disease respectively, suggesting

that the increased detection of smaller renal masses could lead to an overall reduction in mortality for RCC⁴. When organ-confined (T1-T2), RCC is treated with curative intent, traditionally with radical nephrectomy (RN). Nephron sparing surgery (NSS) has now emerged as the preferential operative treatment for small renal masses (T1a) in appropriate cases⁵. In patients with metastatic disease, cytoreductive RN has a role in reducing disease burden when used in conjunction with systemic therapy⁶.

The majority of RCC diagnoses occur in the 6th and 7th decades of life^{7,8}. Given the higher incidence of risk factors for chronic kidney disease (CKD) in this age group, such as hypertension, diabetes mellitus and cardiovascular disease, there is just concern about the impact of RN on renal function. CKD is associated with a significant burden of morbidity and mortality⁹. This burden increases incrementally with reducing