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A Framework for Exploring the Policy Implications of UK Medical Tourism and International Patient Flows

Neil T. Lunt, Russell Mannion and Mark Exworthy

Abstract

It is estimated that over 50,000 individuals from the UK each year elect to fund their own treatment abroad. Such treatments commonly include cosmetic and dental surgery; cardio, orthopaedic and bariatric surgery; IVF treatment; and organ and tissue transplantation. The UK has also experienced inward flows of patients who travel to receive treatment and pay out of pocket, being treated in both private and NHS facilities.

The rise of 'medical tourism' presents new opportunities and challenges in terms of treatment options for consumers/patients and health policymakers. Such developments denote a commercialization, commodification and internationalization of health care in a way that UK policy has not experienced to date.

This article addresses four key issues. We explain the rise of medical-related travel (applied to the UK), identify key policy considerations for the future, highlight important research gaps and explore conceptual frameworks which might help us understand better the observed patterns of medical tourism. Whilst the context for policy and practice is undoubtedly dynamic, we argue the need for greater clarity in understanding the emergent implications for health policy and health care delivery.

Keywords

Medical tourism; Medical travel; International patients; Health policy; Globalization

Introduction

Since the establishment of the National Health Service (NHS) in 1948, health services in the UK have been funded primarily through general taxation and delivered free at the point of access to individuals with permanent resident status. However, recent decades have witnessed an expansion in the global market for health services. This has been manifest in various ways including an unprecedented increase in the volume of patients willing to traverse national borders for the purposes of receiving medical care (Lee

Address for correspondence: *Neil T. Lunt, Department of Social Policy and Social Work, University of York, Heslington, York YO10 5DD, UK. Email: neil.lunt@york.ac.uk*

et al. 2002; Lunt *et al.* 2011). One important dimension of the new internationalization in health care is the phenomenon of medical tourism whereby UK citizens elect to self-fund their own treatment abroad and travel often to less economically developed areas of the world (Carrera 2006; Ehrbeck *et al.* 2008). At the same time, there has been a steady flow of 'international patients' travelling to the UK to access a range of health care services (ONS 2011).

Medical tourism is a generic term that has been coined to describe a heterogeneous collection of health-related travel (Goodrich 1993; Huat 2006a, 2006b; Fedorov *et al.* 2009). Medical tourism spans the full range of medical specialities, but commonly includes cosmetic surgery and dental procedures, orthopaedic surgery, cardiac surgery, assisted reproductive technology and organ and cellular transplantation (Appendix table A1 details NHS eligibility for key medical treatments and destinations of outbound UK medical tourists). The distances travelled by patients vary from intercontinental travel to shorter cross-border trips, including between and within high, middle and low income countries. However, the global pattern of patient movement since the 1990s has shifted away from individuals travelling from low income countries to access better resourced health care facilities in higher income countries towards patients travelling from high income countries, including the UK, to low and middle income countries, often to avoid long waiting lists for treatment in their own country and to take advantage of cheaper health care (Whittaker 2008; Crooks *et al.* 2010).

Medical tourism can be conceptualized within the wider phenomenon of health trade as an example of the General Agreement on Trade in Services Mode II of health trade – consumption abroad (cf. Sapir and Winter 1994: 27). Medical tourism can also be distinguished from other types of international patient mobility, including:

- *Temporary visitors abroad* – some tourists will inevitably need to access health care in another country as a result of an accident or a sudden illness whilst on vacation or on business. Such treatments are commonly funded through private insurance. Reciprocal arrangements within the EU cover basic health care in such circumstances.
- *Long-term residents of other countries* – mid-life and 'retirement migration' is a growing international phenomenon and a significant number of UK citizens are choosing to move overseas and access health services provided by their adopted country.
- *Outsourced patients* – in some cases, NHS patients may be sent abroad for health care, funded by their statutory or commissioning agency as part of a range of formal cross-border purchasing agreements. Such arrangements have often been facilitated by legal rulings, such as the Kohl-Dekker case in the EU (Exworthy *et al.* 2001). Likewise, increasing numbers of patients from abroad are being outsourced into the UK and treated by both private and NHS providers, with the funding from national governments, health regions and third party insurers (Bertinato *et al.* 2005; Rosenmöller *et al.* 2006; Glinos *et al.* 2010).

Understanding the patterns of medical tourism and the associated consequences for national health systems are the remit of this article.[1] Better understandings are essential in explaining medical tourism through conceptual models. Whilst at first glance the movement of medical tourists may be seen as disconnected from the concerns of domestic health policy, we argue that there are attendant implications for the funding, provision and regulation of UK health care services.

The scope of this article is four-fold: to explore the rise of medical tourism, to identify the key emerging policy issues (as they relate to the UK), to identify gaps in the evidence base which need to be addressed, and to develop an analytical framework to guide future policy and practice. It is organized in three sections. The first section describes the phenomenon of medical tourism, including a brief history of health-related travel and provides a definitional discussion of how medical tourism differs from other forms of patient mobility. This is followed by a section exploring the implications for the NHS of inward and outward patient flows. In the final section, we consider an emerging research agenda for medical tourism and propose an analytical framework within which to situate future policy considerations with regard to such medical travel.

Medical Tourism and Patient Mobility

Medical tourism is not a recent phenomenon and dates back many thousands of years to at least as far as the Ancient Greeks and Egyptians who travelled for the therapeutic benefits of hot springs and baths (Snyder *et al.* 2011). Across Europe, the health benefits of spas was well established in the 19th century and resorts such as Bath in England and Baden Baden in Germany were popular destinations for wealthy travellers, whilst Budapest was the centre of international spa promotion in the years leading up to the Second World War (Bender *et al.* 2002). More widely, the recuperative effects of 'landscape' and 'getting away from it all' as a motivation to travel is well documented (Hembry 1990).

Medical and surgical treatments abroad also have a long history (Smith and Puczkó 2008). Such travel was traditionally the province of wealthy patients or those driven through desperation to risk trying the latest untested techniques abroad. Indeed, a number of specific places, including Harley Street in the UK, the Cleveland Centre and Mayo Clinic in the USA for example, have gained reputations for high quality care and continue to attract large numbers of overseas patients (Humphrey 2004; Gurwitz and Kingsley 1982).

Many Low and Middle Income Countries (LMIC) have sought to enter the medical tourism market place since the mid-1990s. Thailand, for example, is increasingly focusing on the provision of health care to overseas patients due to the Asian economic crisis, which has resulted in under-used capacity in its private health system as Thai nationals switch to using the publicly funded health care system (Wibulpolprasert and Pachanee 2008). A number of countries, including Malaysia, India and South Korea, are all seeking to attract medical tourist patients and their national governments fund the promotion and development of medical tourism services and activities in the search for

foreign exchange and to develop domestic high-tech industry. Some destinations have marketed themselves as a health care or bio-medical city. Singapore, for example, is promoted as a centre for bio-medical and bio-technological activities (Cyranoski 2001) and the last ten years has seen the emergence of the Dubai Health Care City (Crone 2008; Connell 2006; Lunt *et al.* 2011). In terms of national health systems, Cuba has since the 1980s promoted health spa and medical tourism to fee-paying foreigners (particularly those travelling from North America) (Goodrich 1993), and using the income generated to cross-subsidize the domestic public health system (Charatan 2001; Simon 1995).

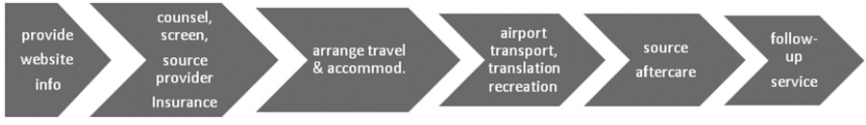
Health care providers offering services to medical tourists are also evident in Europe, often catering for specific national groups. Medical tourists visiting Hungary for treatment, for example, tend to be from Western Europe (Terry 2007), and some countries seek to exploit longstanding historical and cultural connections, for example, between Malta and the UK, or UK and Cyprus (cf. Muscat *et al.* 2006). Other Western European patients and providers take advantage of the growing familiarity with countries as a result of the opening of Eastern Europe and the former USSR (e.g. between the UK and Poland) (Brozek 2011).

Tourist Packages of Care

A notable feature of the latest wave of medical tourism is the role of the third party intermediary (rather than being directly referred or receiving informal recommendations from a domestic consultant). Concierges or brokers act as advisers and help the consumer/patient select, negotiate and access health care abroad (Cormany and Baloglu 2010; Crooks *et al.* 2010). As Figure 1 outlines, typically brokers and a range of websites market bespoke surgical packages tailored specifically to the individual requirements and circumstances of patients. Typical services covered include the booking of flights and hotels, arranging treatment, and recuperation services. Some brokers or concierges also offer medical screening to potential patients. In discussing destination marketing, Cormany (2010) argues that medical tourism procedures can be segmented along three lines: intrusive treatments, including cosmetic, non-life threatening (elective hip or eye surgery) and life threatening (transplantation); diagnostic; and lifestyle including spa treatments and non-surgical alternative therapies. Alternatively, a useful distinction can be made between preventative and curative treatments (George *et al.* 2010).

Figure 1

Medical tourist pathways



There has been surprisingly little exploration of the inter-linkages between pre-existing tourist facilities and the subsequent development of medical services. For example, medical tourism is an unexplained omission from Page's (2009) overview of the developing field of travel medicine within tourism studies. More recent work within tourism research, however, has started to explore the intersection between health and tourism (see Hall 2011; Heung *et al.* 2010; Lee 2010) including the formulation of choice models used by consumers in selecting destinations and providers of treatment, the role and impact of destination marketing, and consumer considerations of travel risk.

A key attraction for individuals from the UK seeking health care abroad is the increasing availability of low cost medical care and after care services (see Appendix table A2 for a comparison of costs for common procedures across a range of destinations which highlights the potential savings that accrue to individuals). Other drivers for patient mobility include the desire to avoid long NHS waiting times for certain procedures and to circumvent restrictive eligibility rules for particular treatments and services (see Appendix table A1). The growing ease and affordability of international (air) travel and the expansion of internet marketing are also thought to be factors influencing the decision of UK citizens to seek treatment abroad (Lunt *et al.* 2010; Crooks *et al.* 2010). Some patients are also likely to be attracted by the privacy and confidentiality afforded by distant destinations. Others may be attracted by the availability of a wider variety of holistic alternatives and complementary approaches to medicine and wellness services provided in some countries (e.g. spa towns) (Gesler 1992). For those seeking to promote medical tourist facilities, an established reputation for high quality care, English language competence, and natural assets such as a moderate climate, coast and beautiful scenery are likely to be important factors influencing potential patients' willingness to travel to particular destinations (Lunt and Carrera 2011). Overall, however, the evidence base relating to the determinants of consumer decision-making with regard to medical tourism is rather sparse. Although there is a burgeoning literature around medical tourism, more attention needs to be paid to what could be termed 'the fourth platform' of medical tourism writing. Thus, there is a need to move beyond an advocacy platform that is normative ('the good'); a cautionary platform which is pessimistic ('the bad'); an adaptive platform focused solely on technical lessons ('the how'); to encompass a *knowledge-based platform* involving understanding and analysis ('the why') (cf. Jafari 2001).

Medical tourism generates income for the health sector of the destination country whilst increasing tourist spend on air fares, accommodation, subsistence and excursions is also an important source of foreign exchange income for destination countries (Johnson and Garman 2010). A substantial level of expenditure by medical tourists, and their companions, is not related to medical care. For example, it is estimated that those accompanying the patient can spend about twice as much on hotels and tourism activities as the patient (NaRanong and NaRanong 2011).

Medical tourism is a changeable – indeed, sometimes volatile – market given the dynamic interplay of changing medical technology, government

policy, social trends, marketing and unforeseen international events. Domestic national policy reforms may also help drive changes (such as tightened eligibility may encourage outflows), whilst workforce planning measures (such as increased numbers of NHS dentists) can dampen outward patient movement.

The increased willingness of some UK nationals to travel long distances to receive treatment overseas would appear to be at odds with recent research demonstrating that many UK patients do not actually travel outside their own local health community (Fotaki *et al.* 2005; Greener and Mannion 2009; Exworthy and Peckham 2006; Dixon *et al.* 2010). This apparent contradiction is due to a discrepancy between the stated and actual travel patterns, reflecting the contingencies of specific clinical conditions (including fatigue, pain and travel risks). There are no verifiable statistics published on the number of outward (or inward) bound UK medical tourists. Data provided by the *International Passenger Survey, 2011* (ONS 2011) must be treated with caution but suggest that in the year 2010, a total of 63,000 UK patients travelled overseas and spent around £62 million funding their treatment. The most popular destinations for medical tourists from the UK seeking surgery are thought to be India, Hungary, Turkey, Thailand, Malaysia and Poland. In addition, the *International Passenger Survey, 2011* suggests that, during 2010, 52,000 overseas visitors travelled to the UK for medical treatment, generating about £132 million in income (ONS 2011). However, there are difficulties in establishing the precise level of income generated in the UK from medical tourism as private providers' financial activities are commercially sensitive and are not routinely reported. In addition, the numbers of international patients being treated in NHS facilities are difficult to disentangle from more routine reporting of all patients receiving care in NHS facilities. Williams *et al.* (2000) suggested that over a decade ago there were 16,600 admissions from overseas into the UK private health care sector.

UK Policy Implications of Medical Tourism

The growth of medical tourism and inward international patients presents new opportunities and benefits for individuals but, at the same time, brings a range of potential problems, risks and challenges. The opportunities and challenges both need to be better understood and addressed. In what follows, these are discussed under four broad headings:

1. patient decision-making;
2. continuity of care;
3. safeguarding quality and safety; and
4. the economic consequences of medical tourism.

There has been a failure, to date, to locate medical travel flows (both inward and outward) within the broader health policy context. Discussions of medical tourism have largely focused on micro-anthropological and sociological dimensions of lived experience and identity, ignoring the impact on developed health systems (Lunt *et al.* 2011).

Patient decision-making

Relatively little is known about how medical tourists make decisions on the treatments they seek to access and the destinations to which they travel to and how – if indeed at all – they balance different forms of hard data (namely, performance measures, quality markers, etc.) with soft intelligence (namely, information provided by websites, the recommendations of family, friends, and exchanges via internet chat rooms) they use when formulating their decisions. Patients, for example, who choose on the basis of price and without a formal referral from a General Medical Practitioner (e.g. using information circulating around informal networks) may be a particular concern as such decisions may not be based on the best medical advice. The role of General Medical Practitioners in encouraging or discouraging UK residents who are considering undertaking medical tourist treatment overseas is unclear and raises potential ethical and professional issues regarding travel to lower and middle income countries for treatments such as transplants or receiving treatments lacking clear efficacy (cf. Crozier and Baylis 2010).

Similarly, how individuals assimilate and understand the advertising and information they retrieve with regard to medical travel is not yet fully understood. Decision-making and choice are not solely an individual concern but have wider implications for public policy. For the purposes of consumer protection and regulation, for example, it is necessary to understand how individuals judge the information they retrieve, given that such information may well be confusing, overwhelming and even contradictory, Moreover, such information typically promotes the benefits of overseas treatment whilst downplays the associated risks (Mason and Wright 2011). Interrelated with such issues of choice and decision-making are fundamental questions of how trust and credibility of information are established and maintained in light of the higher levels of risk and uncertainty with regard to seeking treatment abroad (Natalier and Willis 2008).

It is not clear whether factors that encourage cross-border flows (including type of care, reputation of provider, urgency of treatment, gender, age, location and socio-economic status of patients) (Exworthy and Peckham 2006) are similar to those that shape out-of-pocket medical tourist flows. Outgoing medical tourists from the UK are likely to come from certain social and population groups and it would be useful for any future research to profile this social patterning (Exworthy and Peckham 2006). It is also likely that some expatriate diaspora networks are important for some groups travelling from the UK, for example, first- and second-generation Indian populations visiting India for treatments and check-ups (Smith *et al.* 2011a forthcoming). This also raises issues about access to health care, including appropriate cultural provision within publicly funded services in the country of origin. Sobo (2009), for example, identifies how diasporic flows of patients may bring a range of benefits – such as reinvigorating kinship connections and ethnic identities and stimulating new cultural practices. But if the latter emergent practices involve, for example, a trade in transplant organs facilitating flows of transplant patients between the UK and India/Pakistan, then this raises wider legal, ethical and clinical concerns (cf. Krishnan *et al.* 2010). Migrant ethnic groups

may have medical patterns unrelated to transnational connections at 'home'; Somali groups resident in Manchester, for example, are reported to travel to Germany for diagnosis and treatment, purchasing services out-of-pocket because they mistrust and misunderstand publicly funded NHS care, including GP services (Socialist Health Association 2009). Whilst medical tourism may be conceptualized as part of the continuum of self-care (Ryan *et al.* 2009), it is important for health policy to ensure that such routes are not default choices for those whose needs are met through traditional (NHS) services.

Within the UK, health care has not been viewed traditionally as simply another product to be marketed and advertised (despite growing health care competition and pro-market policies), and therefore advertising for medical products is strictly controlled by legislation and strict Codes of Practice (Williams and Valverde 2009; Medicines and Healthcare products Regulatory Authority 2005). Medical tourism has the potential for supplier-induced demand, where the supplier determines both the need for the service as well as benefiting financially from delivering the service (Mooney 1994). For some treatments, for example, cosmetic and fertility treatments, this presents particular problems of supplier-induced demand. For example, Salant and Santry (2006) highlight the growth of web-based advertising of bariatric surgery centres overseas. These centres, in common with many medical tourist destinations, rely on consumer self-referral and thus need to stimulate demand for these services and promote their reputation. As Abel-Smith (1976) famously remarked, private medicine has a tendency to over treat.

Continuity of care

Continuity of care is increasingly viewed as a key factor in the delivery of high quality health care but an aspect of care that is seemingly under threat from commercialization. For Pellegrino (1999), for example, the dangers of the increasing commercialization and commodification of health care are that 'physicians no longer look on patients as "theirs" in the sense that they feel a continuing responsibility for a given patient's welfare' (Pellegrino 1999: 253).

The treatment pathway for those receiving treatment overseas can be conceptualized as comprising a number of sequential stages, each carrying potential threats and risk implications for publicly funded health care. Thus, whilst the patient journey may be an individual one, there are five specific health policy implications. First, travel to a country with a tropical or a sub-tropical climate such as Thailand or India, with a different disease ecosystem, requires pre-travel advice, especially if the patient is in an 'at risk' category. Recent coverage of the introduction of a superbug into the UK from India related to overseas treatments, including cosmetic surgery, raised major public health concerns (Kumarasamy *et al.* 2010; Hall and James 2011).

Second, there are concerns with regard to pre-counselling and informed consent for procedures being contemplated. If individuals have a pre-existing illness (e.g. diabetes mellitus, cardiovascular deficiency, respiratory disease) or take other medications, such background factors and co-morbidities need to be addressed by health care professionals at the earliest opportunity (cf Krishnan *et al.* 2010).

Third, approximately 8 per cent of all travellers to low income countries require medical care during or after their travel (Freedman *et al.* 2006). Thus, as a subset of this group, medical travellers may become ill while overseas in ways quite unrelated to their primary reason for travelling overseas for treatment. Alternatively, they might develop complications or side effects related to their treatment. The quality of post-operative care can vary dramatically depending on the health care facility and country of destination, and may be different from NHS standards (Green 2009).

Fourth, the journey home from the destination country following medical treatment can be difficult and painful, especially after complex surgery. Problems can develop during the return flight, such as deep venous thrombosis and pulmonary thrombo-embolism, or even a myocardial infarction (Arya *et al.* 2002; Handschin *et al.* 2007).

Finally, subsequent to arriving home, complications, side-effects and post-operative care become the responsibility of the home medical care system, and patients may encounter problems accessing adequate health care if they do not have accurate treatment records because history, treatments and medications are not fully documented.

Safeguarding quality and safety

Modern health care is an inherently complex and risky undertaking with the potential for clinical errors and medical malpractice ever present, particularly when accessing health care in countries where providers are poorly regulated. Within higher income countries, evidence is growing that harm to patients resulting from errors and mistakes by health care professionals are a significant problem (Hurwitz and Sheikh 2009). We know, for example, that in the NHS and many other highly developed health systems around 10 per cent of hospital patients experience an adverse event during their stay (Sari *et al.* 2007; also Institute of Medicine 2001) and it is widely thought that clinical error rates are much higher in developing countries (Laing *et al.* 2001; Zaidi *et al.* 2005). This has given rise to increased regulation, inspection and accreditation of health care providers to assure high quality and safe care in most developed health systems (Power 1997). However, there is little comparable information with regard to the quality and safety of care provided by many of the destinations visited by UK medical tourists. There is some evidence to suggest that poor quality of care delivered to UK patients overseas can increase the use of NHS services at home. For example, outward-bound UK medical tourists are subsequently being treated by the NHS for complications arising from poor care provided overseas (Jeevan and Armstrong 2008; Birch *et al.* 2007). One observational study conducted from 2007 to 2009 on patients presenting complications of cosmetic tourism surgery to a tertiary referral plastic surgery practice identified 19 patients presenting. Most of these operations were performed in Europe or Asia (primarily breast augmentation procedures). Eleven patients were reported to have received NHS treatment, at a cost of £120,841 (Miyagi *et al.* 2011). There are anecdotal suggestions that medical tourists view visits to their GP upon return as central to their aftercare regime. For the growing phenomenon of 'fertility

tourism', a UK-based 11-year follow-up study of high order multiple pregnancy found that 26 per cent of mothers had their fertility treatment performed overseas (McKelvey *et al.* 2009). These studies notwithstanding, relatively little is known about the impact of self-funded treatment abroad on NHS readmission rates, morbidity patterns and patient mortality (Green 2009); data are remarkably sparse.

Patients also generally lack the technical knowledge to assess the quality and appropriateness of care and may struggle with a foreign language or navigating a different health system (Legido-Quigley *et al.* 2008). In many cases, the main source of information on quality is provided by a website created by intermediary organizations (Lunt *et al.* 2010). While consumer-friendly websites may provide reassurance about the quality of treatments and the qualifications and competences of foreign providers and individual clinicians, they also remain largely unregulated and the information provided can be seen as potentially misleading. A policy issue for the UK government as with all governments is how best to safeguard its citizens abroad. Medical tourism destination countries differ widely in terms of how stringent their health care regulation, certification, licensure and accreditation processes are.

Organ transplantation overseas raises particular risks. Krishnan *et al.* (2010) conclude that Indo-Asian patients with diagnosed renal failure seeking transplant abroad via commercial kidney transplants have poor clinical outcomes compared to comparator groups of local transplantations (including high rates of infection and with over 30 per cent of cases resulting in patient death or graft loss). Many patients travel without a clear understanding of the risks to which they are exposed and need to be counselled accordingly (Krishnan *et al.* 2010).

The economic consequences of medical tourism

Given the potential and actual travel patterns of medical tourists, it is sensible to ask: what are the economic implications of medical travel for the UK NHS? We address this key question in two parts: considering first the inward flows of international patients, and, second, the outward flows of medical tourists from the UK to overseas providers.

Inward flow of foreign patients to the UK. Delivering care to international patients will contribute to the level of direct foreign exchange earnings coming in to the UK. International patient flows may have multiplier effects as demonstrated by the RAND study of Cleveland's metropolitan economy highlighted the economic benefits that the Cleveland Clinic added to the local economy (Gurwitz and Kingsley 1982). However, there is no corresponding UK evidence regarding the economic benefits of incoming medical tourists. Sectors other than medical care – especially those associated with hospitality and travel – may also benefit financially from increased medical tourism. Central government will also benefit through increased taxation revenue. However, the involvement of transnational and global corporations may, in fact, result in profits from medical tourism being leaked overseas as several major private

providers in the international patient markets in the UK are owned by overseas parent companies such as the HCA International Group (USA), Ramsay Healthcare (Australia) and the Cinven/Spire corporation (a European Buyout Firm).

Medical tourism may provide incentives and opportunities for clinical and ancillary staff from developing countries to return home. This would have the effect of reversing the 'brain drain' of qualified clinicians and health professionals to the UK and other developed countries, which is seen to disadvantage these countries. This may, however, also be a dis-benefit for the NHS which has long used such expertise to underpin its health system (Raghuram and Kofman 2002; Crisp 2010). But currently, little evidence exists on the impact of medical tourism on the international market in health professionals. Similarly, there have been concerns raised over the potential for international patient flows to induce an *internal* brain drain within less developed countries, with private providers treating international patients and stimulating health professionals to abandon the public health system to pursue better salaries and work opportunities in the private sector. As Botten *et al.* (2004) note, higher activity in the private sector (assuming a tight labour market) will impact on activity within the public sector even though waiting lists may be reduced in the public sector.

Health trade could, potentially, exert competitive pressure on systems importing health care and help drive down the costs and prices offered in domestic systems (Herrick 2007). Medical tourism may encourage countries to maximize their comparative advantage across labour costs, utilization of technology and spare capacity. 'Demonstration effects' of best practice and technological diffusion may benefit countries providing medical tourism, irrespective of whether it is delivered via public or private provider channels. The increased ability to purchase the latest technology, for example, and treating foreign patients may broaden the case-mix for staff, or increase throughput to enable them to become more skilled and deliver higher quality care (Botten *et al.* 2004: 324). The recent establishment of a dedicated stand-alone cancer centre in London at Elstree by the Spire Group is presented in these terms. State-of-the art equipment such as Intensity Modulated Radiation Therapy (IMRT) and Image Guided Radiation Therapy (IGRT), and specialized medical staff may make the facility attractive to international and private patients (Spire Healthcare 2011). The centres are privately managed and built alongside regional private hospitals – although a future aspiration is to set up centres within NHS hospitals. It is a partnership between Cancer Partners UK and Spire Bushey Hospital and serves patients both privately and through the NHS (Spire Healthcare 2011).

Medical tourism may be linked to temporary secondments to, or partnerships with, overseas facilities which may lead to improved skills development and training opportunities. The ill-fated private HMI hospital established near Glasgow in 1994 that was later bought by the NHS and renamed the Golden Jubilee Hospital (Hay and Botterill 2010) suggested that it would contribute to undergraduate and postgraduate training, and stressed its Radiography Department was also affiliated with the Harvard Medical School (Richmond 1994). Crisp (2010) identifies the potential learning opportunities

for high income health systems from collaboration to those in lower income countries; for example, in the treatment of TB.

These issues surrounding international patients are currently high on the English NHS health policy agenda. Under the 2011 Health and Social Care Bill currently in the Lords (Department of Health 2011) it is proposed that the private patient cap will be removed for foundation trusts, and this will present opportunities for NHS trusts to secure greater numbers of patients travelling from overseas for treatment. Foundation trusts currently face a cap on the income that they can derive from private charges. This cap is currently set at the 2002/03 level as a percentage of total trust income. Removing the cap would allow foundation trusts with an international reputation to expand the services it offers for the broader base of patients. Great Ormond Street Trust was named explicitly in the original Bill. There is also a newly emerging debate about the ability of the NHS 'to exploit the power of its international reputation and financially gain from use of the NHS "brand" when marketing NHS services to overseas patients' (Department of Health 2011). To date, foundation trusts have been often unwilling or unable to take full advantage of their 'apparent freedoms' (Exworthy *et al.* 2011).

Additional private sector income is explicitly identified in the Bill in the form of 'additional non-EEA overseas private patients' who, under previous capping arrangements, could not be treated in the NHS. How the increase in private activity impacts on the NHS and its patients is not clear and is dependent upon whether the particular foundation trust is operating close to capacity and whether additional capacity is generated to treat private patients or existing capacity is used to treat private patients (Department of Health 2011). NHS patients may reap benefits if new or enhanced facilities are shared between private and NHS patients. However, if private patients are of greater priority there will – all things unchanged – be a growth in waiting lists and waiting times for NHS patients (Department of Health 2011: Sections B155–B156). These non-UK patients will, potentially, be those outsourced by governments and those paying out of pocket (and, indeed, those using cross-border EU patient rights to choose to be treated overseas). Inward flows of patients are premised on prospective patients being able to navigate the immigration system, and recent changes to the UK visa policy may impact on the flow of international patients into the UK.

Outward flow of UK patient to overseas providers. What are the policy implications of outward flows of medical tourists? As noted above, the costs of rectifying the problems caused by poor treatment overseas may fall on the NHS. That said, the precise scale and costs of any problems are unknown and under-researched (although see Miyagi *et al.* 2011). Currently, medical tourism is limited to the private, out-of-pocket, sector. However, there are important knock-on considerations for publicly funded and provided systems, such as the NHS. Boundaries between medical tourism and outsourcing can change, where increased willingness to travel is taken as an opportunity for reform. A recent study has examined the possible bi-lateral medical tourism trade between the UK and India and this provides useful empirical

evidence. The study demonstrated substantial savings (between £120 million and £200 million) could accrue to the UK NHS from sending domestic patients to India, both financially and in helping to reduce NHS waiting lists for specific procedures (Martinez-Alvarez *et al.* 2011; Smith *et al.* 2011a forthcoming, 2011b). Some ethnic sub-groups, such as the Indian diaspora, may prefer India for treatment, and be willing to cross-subsidize some of the costs. Indeed, diasporadic flows may suggest something more complex when compared to one-off episodes of medical travel – this raises the prospect of 'care shared across countries' with frequent return travel (Rogers *et al.* 2011).

Large numbers of medical tourists travelling overseas will impact on the UK's own health system, perhaps increasing trends that are encouraged by the current domestic private provision (especially to avoid perceived long waiting lists and to seek high level of 'customer service'). Indeed, outflows of medical tourists for treatments that could be provided locally could signal deficiencies of policy and delivery in sender countries; medical tourism has thus been described as 'an epiphenomenon of domestic health care failure' (Weiss *et al.* 2010: 600). If eligibility for services such as fertility or dental treatment is tightened, then those with private resources may 'choose' to travel overseas to obtain access to treatment. However, travel overseas for health care that is not provided at home or is illegal within the source country may normalize such treatments and generate debate at home about the importance of providing them locally (e.g. the latest fertility treatments, gender reassignment and organ transplantation). In relation to bariatric surgery, for example, a recent US study suggested that such surgery *should* be universally available to all groups of people (Chang *et al.* 2011). However, that numbers of people are willing to pay out-of-pocket overseas may, in fact, ease political pressure for such a policy position within the NHS. Exodus of largely middle class patients as medical tourists may have the effect of undermining further the 'social contract' of the NHS, whereby they contributed most for the NHS but used it least.

Analytical Framework and Evolving Research Agenda

Clearly, then, flows of patients into and out of the UK raise a number of important questions for domestic health policy. What is surprising is the lack of attention to the implications of these flows in current academic debate. Having established there are important issues for the NHS – how should they be understood and what research questions and approaches would be fruitful?

We argue that any analytical approach for understanding these issues must address both supply-side and demand-side factors. Whilst choice, access and willingness to travel lie at the heart of medical tourism, it is crucial that a focus does not neglect supply-side considerations, including a consideration of wider policy and organizational contexts. Here, we draw upon existing conceptualizations in relation to domestic treatments and the NHS Patient Choice policy (Exworthy and Peckham 2006). The decision architecture within which NHS patients on the one hand, and medical tourists on the other hand 'choose' are

very different (Thaler and Sunstein 2008). Willingness to travel is clearly an important part of the decision-making process for both parties but equally important, in the context of medical tourism, is 'willingness to treat' by providers whether in the UK or in other countries. This reflects that international medical travellers face a range of options that are less clear cut and stable than those of patients choosing providers within an NHS context. In the NHS, treatment decisions (including choice of a provider), tend to follow medical assessment and there is more standardization and uniformity of treatment options and professional standards (such as the National Institute for Clinical Excellence guidelines).

This is not the case however with medical tourism. The providers of services are themselves involved in a more dynamic interplay where clinical and managerial behaviours and marketing approaches are important to decision-making. International 'Willingness to Treat' decisions include 11 possible considerations which are all open to empirical inquiry:

1. *The regulatory framework (including the lack of one)* may present constraints on the services that may be offered to international patients. Conversely, the regulation in a destination country may allow treatment approaches with knock-on implications for UK travellers (such as non-efficacious treatment options, and sub-optimal approaches to infection control).
2. *State and regional support for the development of medical tourism* may have a significant bearing on the growth of medical markets. For example, with the lifting of the private cap in the NHS, international medical tourism could be promoted, making more use of the familiarity with NHS traditions and perceived quality.
3. *Professional bodies' support and involvement within medical tourism* may seek to engage or oppose the treatment of overseas patients, which will impact on the development of services. Some professional bodies, for example, may decide that there are wider system benefits of adding medical tourist flows to treatment patterns, or oppose such developments as detrimental to longer-term interests of patients and professionals.
4. *The structure of health care provision (e.g. single-handed General Medical Practitioner practices; entrepreneurial approaches and less socialized approaches to medicine)* may be more or less responsive and may avoid successive layers or organizational approval which may act as resistance for service development and innovation.
5. *Cultural and ethical standpoints of providers on offering particular treatments*. Some providers may be prepared to offer treatments that are more risky, or to place different emphasis on the ethical issues involved (e.g. organ transplantation, fertility, treatment and certain forms of cosmetic surgery). The search for untapped markets may allow new menus of surgical treatments and packages of treatment to be offered to consumers (Jones and Keith 2006; Ryan *et al.* 2010).
6. *Market opportunities, niches and potential for profit* may be sought by providers who seek to capitalize on established reputations and perhaps to develop treatments that target certain cultural groups (e.g. Middle-

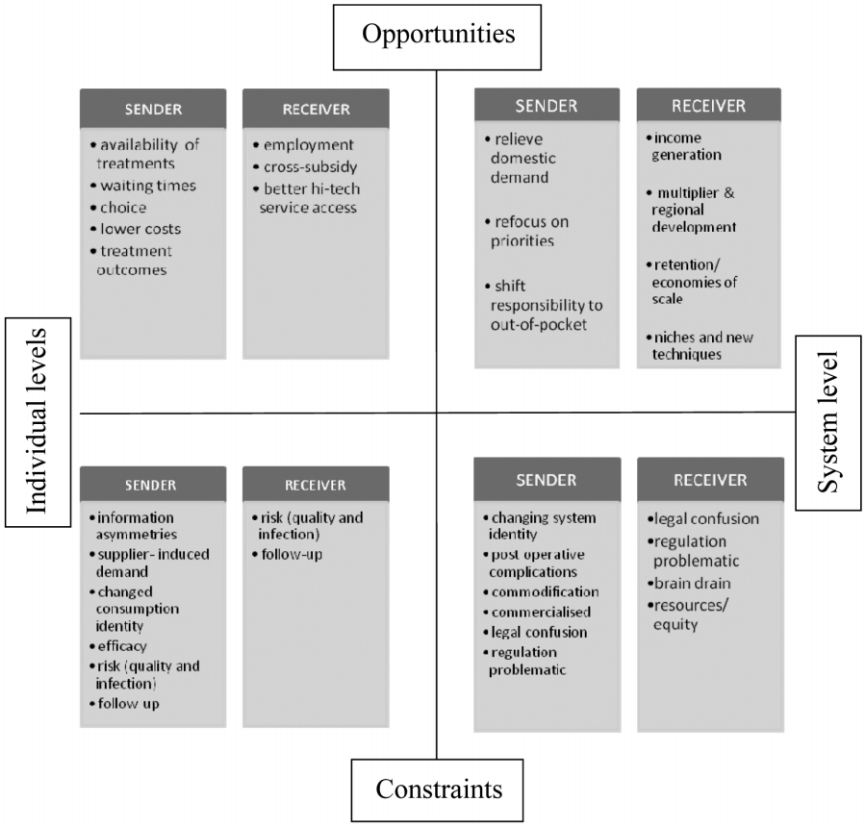
Eastern patients) or sections of the population, or those seeking particular treatments, such as gender reassignment operations.

7. *Economic position, exchange rate and comparative advantage*. This will impact on the affordability of treatments and may contribute to volatility in patient flows depending on the wider economic context.
8. In terms of *policy traditions and trajectories*, countries with a history of private sector provision and a tradition of elite patients using services from overseas will have particular first mover advantages as they look to develop involvement in an international market. There may also be established flows and referral networks in existence that can be further utilized.
9. *Health care reform and existing capacity within systems* will dictate, to a large extent, whether providers will engage in treating overseas patients if they are to meet targets set nationally, for example income or services development targets.
10. The role of *national/international quality frameworks* may shape the way in which countries engage with national quality frameworks, and how important are these for securing international patient flows. Beyond individual accreditation schemes such as Joint Commission International, International Organization for Standardization (ISO) provides standards against which organizations or bodies may be certificated by accredited auditors.
11. *Professional willingness to treat individuals who lie outwith safety guidelines and normal professional criteria (age, weight, medical history)*. Thus, are particular treatments offered that would not routinely be offered by providers in the same country or in overseas countries?

Research on demand-side and supply-side developments will contribute towards a better understanding of which individuals travel where, why and for what purpose. Medical tourism highlights the importance of understanding the role of the health care industry, issues relating to the marketing and advertising of medical tourism products, the potential for supplier-induced demand and widens policy debates beyond simply 'willingness to travel' which has been a traditional focus of empirical investigation thus far. This more 'global' assessment of medical tourism underlines the opportunities and constraints that are generated by medical tourism for all stakeholders (as illustrated in figure 2). The framework recognizes both opportunities and constraints – for the individual and health system, including for destination and sources countries. As such, medical tourism offers an insight into the multi-level governance issues which are increasingly facing health systems across the world (Blank and Burau 2010; Crinson 2008; Marmor *et al.* 2009; Pollitt and Bouckaert 2004). Understanding the dynamics of and interrelationships between governments, businesses, intermediaries, health care providers and, of course, patients (including prospective patients) will be crucial to understanding and explaining the patterns that are being observed. Figure 2 with its emphasis on individual and social, inward and outward, and opportunities and limitations outlines a possible framework within which to locate investigation.

Figure 2

Framework for understanding medical tourist flows



Research Agenda

Having established that any analytical framework should extend beyond considerations of consumer choice, future research should address the importance of supply and demand considerations, the impact on destination and source countries, individual and system level. Here we establish a research agenda focused around six key requirements:

1. *Better data on patient flows between countries*. There is an urgent need to gather reliable data on the number of medical tourists travelling to and from the UK for treatment to further the understanding of international patient flows. Such numbers are important in assessing the economic impact of medical tourism and also to assess potential risk and opportunities to

source health systems, including the NHS. It is important to ensure 'the unit of analysis' counted is appropriate. For example, what are the implications of counting patients or treatment episodes; day treatments or in-stay treatment; and including expatriates? Equally, significant characteristics of these patients should also be noted in terms of ethnicity and socio-economic status.

2. *Better understanding of patient decision-making.* This will include ensuring decisions taken are embedded in a wider organizational and structural context (e.g. personal drives, family influences, cultural imperatives, socio-economic circumstance and supplier-induced demand). Studies of how specific migrant groups and populations may adopt particular treatment-seeking strategies overseas will also be noteworthy.
3. *Better understanding of clinical impacts of those travelling overseas.* There is relatively little on the unintended consequences, infection rates and costs of rectification of seeking treatment overseas. In order to fill such knowledge gaps, research will require co-operation of organizations that may be able to capture such costs in their routine activities (commissioners and tertiary providers of care), and the professional bodies that may be alert to emerging developments and implications.
4. *Responses of foundation trusts to removing the private patient cap.* The proposed reforms in the NHS provide a useful opportunity to trace the impacts international patient flows have on local patients and professionals, and what the spill-overs and trickle-downs actually are for local areas. This research activity could include assessment of multiplier effects and economic impact assessment studies. There is potential to understand the accounting and financial implications for individual trusts and departments.
5. *Decision-making in the private sector.* This remains a 'black box' within medical tourism provision. If we are to obtain a better understanding of the medical tourist and international patient flows, we need to know far more about the role and operation of the private sector (and aspects of commercial NHS activity), both in the UK and overseas – its strategic decision-making, financial models, marketing options, *inter alia.*
6. *Commercialization and commodification.* Finally, how and to what extent does the growth of medical tourism contribute towards individual health being further commercialized and commodified (Whittaker 2010)? Under a regime of commercialization and commodification, relationships are governed by commercial regulation (tort and contract) rather than professional ethics (commodities are also seen as fungible, impacting on the role and place of patients and clinicians) (Pellegrino 1999).

Concluding Remarks

Medical tourism is an under-researched dimension of contemporary health policy which deserves closer attention by policymakers and academics alike. The price of treatment, the speed of obtaining treatment and the availability of treatment are potential attractions for UK patients seeking health care

abroad, and – due to recent NHS reforms – treating international patients will increasingly be a key objective of NHS foundation trusts. Given the dynamic policy context and the linkages of medical travel and the public health system, the analytical framework presented in this article offers a basis for understanding this emerging phenomenon. It also helps us to understand some of the conceptual and ethical issues associated with the growth of medical tourism from a UK policy context and will help address wider questions around whether developments assist in configuring participants into new market relations and the wider implications of such changes.

Appendix

Table A1

NHS eligibility for common out-of-pocket medical tourism treatments

Specialism	**Widely marketed treatments**	**Widely marketed destinations**	**NHS eligibility** (all other things being equal, ineligibility for NHS services is likely to increase demand for medical tourism)
Cosmetic surgery	Breast, face, liposuction	Poland Hungary Turkey Thailand	The NHS does not pay for surgery for cosmetic reasons alone Reconstructive and cosmetic surgery to correct, or improve, congenital abnormalities and injuries will usually be carried out free of charge
Dentistry	Cosmetic, reconstruction	Poland Hungary Malta	In only limited circumstances cosmetic dentistry is available on the NHS
Cardiology/ cardiac surgery	By-pass, valve replacement	India	Waiting list management – some trusts may set conditions for surgery
Orthopaedic surgery	Hip replacement, resurfacing, knee replacement, joint surgery	India	Waiting list management – some trusts may set conditions for surgery

Table A1

Continued

Specialism	**Widely marketed treatments**	**Widely marketed destinations**	**NHS eligibility** (all other things being equal, ineligibility for NHS services is likely to increase demand for medical tourism)
Bariatric surgery	Gastric by-pass, gastric banding	Belgium Czech Republic India Spain	Criteria for patient funding of bariatric surgery varies. Many PCTs adhere to NICE Guideline criteria, require a BMI of at least 40–60 with type 2 diabetes and/or severe sleep apnoea depending on PCT. Bariatric surgery typically falls outside the standard surgery contracts. There is no specific ring-fenced source to cover the costs of surgery. Funding can be used up during the year
IVF/reproductive system	IVF	Spain	NICE recommends a maximum of three IVF treatments dependent on age and diagnosis criteria. PCTs may also have additional eligibility criteria. Waiting lists for NHS-funded IVF treatment will vary across PCTs
Organ and tissue transplantation	Organ transplantation	India Pakistan Turkey	The decision to register a patient on the transplant waiting list made after discussion. Factors considered include age, primary cause of liver failure, medical or psychiatric conditions. There are currently about 400 NHS patients on the liver transplant waiting list

Source: Derived from official NHS information data sources, http://www.nhs.uk/Pages/HomePage.aspx (accessed 21 December 2010).

Table A2

Industry estimates of potential cost savings

Country	Coronary bypass abroad*	% saving on UK price	Hip replacement*	% saving on UK price	Gold crowns abroad*	% saving on UK price	Dental implants (Straumann system excl. crown)*	% saving on UK price	Facelift**	% saving on UK price	Tummy tuck abdominoplasty**	% saving on UK price
UK	£14,025		£8,000		£465		£2,000		£6,750		£4,810	
Bulgaria	£10,024	29%	£2,784	65%	£154	67%						
India	£4,025	71%	£3,537	66%	£275	41%			£2,143	68%	£1,715	64%
Tunisia	£4,300	69%	£2,900	64%			£600	70%	£2,056	70%	£1,956	59%
Poland			£2,992	63%	£278	40%			£2,190	68%	£2,096	56%
Spain			£7,333	23%	£281	40%	£691	65%	£4,113	39%	£3,766	22%
Thailand			£5,282	34%					£2,873	57%	£2,151	55%
Hungary					£216	54%	£783	61%	£1,955	71%	£1,792	63%

Source: Treatment Abroad, *Treatment Abroad PriceWatch Survey 2008*, http://www.treatmentabroad.com (accessed 5 January 2010).
Notes:
* UK sterling price including hospital and doctors' fees.
** Comparisons of the cost of a facelift abroad are provided below. The price comparisons for cosmetic surgery take into account hospital and doctor charges, but do not include the costs of flights and hotel bills for the expected length of stay.

Note

1. The notion of a citizen claiming EU rights is signalled by the label *cross-border care*.

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