Implications for the NHS of inward and outward medical tourism: a policy and economic analysis using literature review and mixed-methods approaches

Neil Lunt,¹* Richard D Smith,² Russell Mannion,³ Stephen T Green,⁴ Mark Exworthy,⁵ Johanna Hanefeld,² Daniel Horsfall,¹ Laura Machin⁶ and Hannah King¹

¹Department of Social Policy and Social Work, University of York, York, UK
²London School of Hygiene and Tropical Medicine, London, UK
³Health Services Management Centre, University of Birmingham, Birmingham, UK
⁴Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, UK
⁵School of Management, Royal Holloway, University of London, London, UK
⁶The York Management School, University of York, York, UK

*Corresponding author

Declared competing interests of authors: Stephen T Green is a NHS consultant and director of QHA Trent. QHA Trent is a British company delivering accreditation and consultancy services for hospitals and clinics located internationally.

Published January 2014
DOI: 10.3310/hsdr02020

Scientific summary

Implications for the NHS of inward and outward medical tourism
Health Services and Delivery Research 2014; Vol. 2: No. 2
DOI: 10.3310/hsdr02020

NIHR Journals Library www.journalslibrary.nihr.ac.uk
Scientific summary

Background

‘Medical tourism’ is a type of patient or consumer mobility whereby individuals travel outside their own country of residence with the primary intention of receiving medical (usually elective surgery) treatment, incurring out-of-pocket and third-party payments. A number of factors have possibly contributed towards a growth in outward medical tourism. These include improved disposable incomes, increased willingness of individuals to travel for health services, lower-cost air travel and the expansion of internet marketing.

However, although current knowledge of the demand and supply of wider patient mobility is growing at European and national levels, there are no comprehensive data on inward and outward out-of-pocket and third party-funded flows (including government-sponsored), and their health and economic impact for the NHS. This study was particularly timely given the current global financial context and the likely implications for health expenditure and national health budgets.

The study examined the implications of such outward flows for the NHS across a range of specialties and services including dentistry, bariatric surgery, fertility services and cosmetic surgery. The study excluded state-funded cross-border care available under the European Union (EU) directive.

The study also focused on inward flows of international patients being treated within NHS private facilities. It focused on booked and planned treatments for which trusts had expectations of reimbursement (with pre-payment or a ‘letter of guarantee’ from an embassy or insurer).

Objectives

To address the gap in knowledge we examined four inter-related themes: patient decision-making; quality, safety and risk (including in the clinical context); economic implications; and provider and market development. The study objectives were to:

- generate a comprehensive documentary review of (1) relevant policy and legislation and (2) professional guidance and legal frameworks governing inward and outward flows
- better understand information, marketing and advertising practices, within both the UK and provider countries of Europe and beyond
- examine the magnitude and economic and direct health-related consequences of inward and outward medical tourism for the NHS
- understand how decision-making frames, assessments of risk and associated factors shape health treatments for patients, including how prospective medical tourists assess provider reputation and risk
- better understand treatment experience, continuity of care and postoperative recovery for inward and outward flows of patients
- elicit the views and perspectives of professionals and key stakeholder groups and organisations with an interest in medical tourism
- map out medical tourism development within the UK and assess the likely future significance for the NHS.
**Methods**

The study integrated policy analysis, desk-based work, economic analysis and treatment case studies and drew on a mixed-methods approach of qualitative and quantitative data collection.

The study was underpinned by a systematic overview of previously published literature on medical tourism and a legal and policy review. Data provided by the International Passenger Survey (IPS) and foundation trusts’ responses to freedom of information requests were analysed to understand patient flows and their financial consequences. Desk-based activity included a review of websites to assess information quality, understand information, advice and guidance and examine quality and safety accreditation.

We undertook in-depth interviews with key stakeholders including those representing a range of professional associations, clinical interests and representative bodies (n = 16); businesses and employees within medical tourism (n = 18); individual managers within primary care trusts (PCTs) and foundation trusts (n = 23); and overseas providers. We spoke to outward medical travellers – a total of 46 people across four treatment case studies (bariatric, fertility, dental and cosmetic) and our ‘other treatment’ categories. We also spoke with 31 individuals from UK-resident Somali and Gujarati populations.

**Patient decision-making**

Eligibility for access to domestic health-care services is a strong influence on the decision to seek medical care overseas. Patients are prepared to travel abroad when a treatment is not available within the NHS, when they do not meet strict eligibility requirements or when they have exhausted their entitlement [such as in vitro fertilisation (IVF) treatment episodes]. Individuals choose to pay for treatment abroad rather than domestically primarily for reasons of cost, but the perceived expertise of clinicians overseas and family or cultural connections with overseas destinations are also contributing factors. We identify an emerging trend for patients to travel beyond Europe for treatment, but also the key role of diaspora networks and relations in shaping the favoured travel destinations of medical tourists.

**Information, guidance and risk**

Decision-making around outward medical travel involves a range of information sources; the internet plays a key role in addition to information from informal networks of friends and peers. It would appear that medical tourists often pay more attention to ‘soft’ information than ‘hard’ clinical information, and there is little effective regulation of information, be it hard or soft, online or overseas. Because prospective travellers source information from intermediaries, direct from websites and internet marketing, and among networks, it complicates practical attempts to improve the quality of information provided to medical tourists.

A broad range of advice, information and guidance exists for prospective travellers, including the NHS Choices website (see www.nhs.uk/livewell/treatmentabroad/pages/questionsandanswers.aspx) and information developed by the National Travel Health Network and Centre (NaTHNaC) (see www.nathnac.org/travel/misc/medicaltourism_010911.htm). Although potentially valuable, the onus is on prospective medical tourists to seek out such information; presently there is little evidence that they routinely do this. There is clearly scope for health-care professionals within the NHS to become part of the networks of information and support that can be accessed by potential medical tourists.

It is apparent that patients do not fully understand the scale and nature of risk associated with seeking treatment overseas, including the difficulties relating to redress when something goes wrong.
The wide range of clinical, ancillary and support services involved in medical tourism complicates efforts to inform and educate medical tourists, or to regulate aspects of the industry. It is clear that, across many websites of facilitators, clinics and hospitals, treatment risks are underplayed.

Although there has been a recent proliferation of systems of external quality assurance and audit, these (along with the registration details displayed on websites) do not always make for better-informed patients. Beyond generic travel advice for medical tourists, the need for clearer guidance on bariatric surgery, or for patients considering bariatric surgery, is evident.

For fertility, the situation is particularly complex. UK legislation is geared towards reducing the likelihood of multiple births, in particular governing the number of embryos that can be transferred, but such legislation varies cross-nationally. Furthermore, unclear regulatory frameworks overseas mean that patient data may not always be held in the detail expected within the NHS.

When diaspora travel occurs, we have seen that many of the issues outlined here can be further compounded and complicated by wider misunderstandings and often unrealistic culturally rooted expectations about a wide range of issues related to NHS care.

The size and economic impact of the medical tourism market

Individuals travelling for medical treatment are often ill-informed or underinformed and this heightens the risks associated with medical travel. The most robust data available clearly show that this affects many UK residents. Although the limitations of the IPS mean that we cannot banish all uncertainty that surrounds market estimates, the data show that in 2010 at least 63,000 residents of the UK travelled abroad for medical treatment, and at least 52,000 residents of foreign countries travelled to the UK for treatment. These are likely to be conservative estimates, but even these numbers underscore that medical tourism is a very real phenomenon.

Inward referral and flows of international patients are shaped by clinical networks and longstanding relationships that are fostered between clinicians within sender countries and their NHS counterparts; in this sense they may be different to outward flows. Those travelling to the UK for treatment as NHS international patients are more likely to receive complex and expensive treatment underwritten by their national governments – a sharp contrast with outward medical travel from the UK.

Despite important caveats, our calculations show that there are costs and benefits for the UK economy and the NHS resulting from inward and outward medical travel. Our estimates show that inward medical travellers and their companions contribute in the region of £219M pounds to the UK economy in additional tourism spends per annum. We also found spending on medical treatment in the range of £178–325M. Together this amounts to between £397M and £544M per annum.

In addition, our research revealed costs and savings resulting from UK residents travelling abroad to seek treatment. When complications occur and these are dealt with by the NHS, or when surgery undertaken will require lifelong maintenance, this represents additional expenditure for the NHS. Although the actual current costs of such complications seem comparatively small at the moment [e.g. when an infection following cosmetic surgery requires a general practitioner (GP) visit and a course of antibiotics], these can equally be very high (e.g. as a result of failed bariatric surgery patients needing full-time care and possibly being, or continuing to be, unable to work). The costs of corrective surgery and ongoing care can be extremely high.

Our research also demonstrates that, when people opt to travel abroad to access treatment and this is successful and they return to work, savings may be substantial to domestic health and to social services. Most importantly, if medical travel increases, so will these costs and savings.
The industry: providers and market development

Our research demonstrated a range of different models that providers market and by which patients travel to receive treatment. There are clearly legal uncertainties at the interface of these and clinical provision. Models also differed by type of medical tourism and clinical procedure for which travel occurred.

Patients are now travelling to further or ‘new’ markets in medical tourism, highlighting a development and diversification within the market in medical tourists, with higher-end and lower-end destinations emerging.

International patient income generated for NHS trust hospitals, particularly in London, is significant. Although the analysis of data on patient flows shows a change in the profile and origin of travellers, from the Middle East towards a greater number of Europeans, this market appears stable. Many NHS trusts do not always fully distinguish between domestic and international private income earned. Our research findings clearly underline the power of the brand that large NHS hospitals have, the extent to which this attracts foreign capital and the potential for generating further income. In light of the lifting of the cap on private income, some specialist providers may wish to market themselves more aggressively.

Given the importance of clinician networks in attracting referrals of international patients, there are uncertainties about how changes to UK education and training opportunities for non-EU health-care professionals (because of the EU focus and visa restrictions) will change the shape and dynamics of international networks and linkages, thereby impacting on referrals over the medium to long term.

The missing link: patients’ health

Our sample of patients highlights that medical travel is rarely without complications or costs to the individual. Although some people have minor or no problems following treatment abroad, others face severe health problems, which in some cases are then exacerbated by an inability to ensure continuity of care or obtain patient records to address patient needs. This research did not set out to assess long-term clinical outcomes of medical tourists. Yet our findings did reveal that, although the scale of the issue may (arguably) not yet be overwhelming, the effect on individual patients can in some cases be catastrophic.

Implications for practice

Our research has a number of possible implications for practice:

- Information and advice available to potential medical tourists should highlight the lack of a clear framework for redress in many countries should complications arise from treatment abroad. Potential travellers should be made fully aware of current NHS eligibility and commissioning rules, and costs for which patients may be personally liable, including non-emergency care to rectify any poor outcomes of treatments received overseas.
- Information for potential medical tourists needs to be packaged and disseminated in such a way that it will reach prospective medical tourists, who may not consult their GP, or indeed a specialist website, before travelling.
- GPs need support and training to enable them to advise patients not only on the broad consequences of medical tourism but also on the implications of specific forms of treatment that may present particular concerns.
- Specific attention is needed to ensure that information is provided in a manner accessible to all; this includes tailored information to ethnic or linguistic minorities. It is important that all feel that they can trust the information that is provided.
Separately recorded private income from domestic and international sources will enable trusts to have a more accurate picture of their income. This will also provide a more accurate picture of inward medical flows and allow for better planning and decision-making in this area.

**Future research**

- Seek to better understand the medium- and long-term health and social outcomes of treatment for those who travel from the UK for medical treatment. Specifically, comparative research is needed with patients undergoing similar treatment within the UK. This will enable a direct comparison of the costs and benefits of domestic treatment and treatment abroad. Furthermore, a greater understanding of the clinical outcomes of medical travellers that extends beyond the short term will enable a more robust and nuanced understanding of the costs to the NHS of outward medical tourism.
- Generate more robust data that better capture the amount of international patient activity and flows of medical travel. This is needed to provide a deeper understanding of why UK residents seek treatment abroad. Such data should also include sociodemographic data as well as information about what procedures patients are travelling for, to better understand patient motivation for travel.
- Better understand inward flows of medical travellers. This includes data on where patients travel to, the procedures they use, the cost of these and their sources of funding.
- Gather a greater level of information on patients, including their origins, procedures and outcomes, to allow for the development of better economic costing. This could include costs and revenue experienced by the NHS as well as the wider economic and social costs and benefits, which may be both public and private.
- Explore further the issues of clinical relationships and networks. Our research suggests that clinical relationships and networks explain the dynamics and patterns of international patient referrals into the NHS.
- Consider the importance of the NHS brand. Recent policy initiatives are promoting the notion of a NHS brand. Research to explore this brand perception internationally would allow better communication and targeting of activities.

**Funding**

The National Institute for Health Research Health Services and Delivery Research programme.
Criteria for inclusion in the Health Services and Delivery Research journal

Reports are published in *Health Services and Delivery Research* (HS&DR) if (1) they have resulted from work for the HS&DR programme or programmes which preceded the HS&DR programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

HS&DR programme

The Health Services and Delivery Research (HS&DR) programme, part of the National Institute for Health Research (NIHR), was established to fund a broad range of research. It combines the strengths and contributions of two previous NIHR research programmes: the Health Services Research (HSR) programme and the Service Delivery and Organisation (SDO) programme, which were merged in January 2012.

The HS&DR programme aims to produce rigorous and relevant evidence on the quality, access and organisation of health services including costs and outcomes, as well as research on implementation. The programme will enhance the strategic focus on research that matters to the NHS and is keen to support ambitious evaluative research to improve health services.

For more information about the HS&DR programme please visit the website: www.netscc.ac.uk/hsdr/

This report

The research reported in this issue of the journal was funded by the HS&DR programme or one of its proceeding programmes as project number 09/2001/21. The contractual start date was in November 2010. The final report began editorial review in October 2012 and was accepted for publication in May 2013. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HS&DR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HS&DR programme or the Department of Health. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HS&DR programme or the Department of Health.

© Queen's Printer and Controller of HMSO 2014. This work was produced by Lunt et al. under the terms of a commissioning contract issued by the Secretary of State for Health. This issue may be freely reproduced for the purposes of private research and study and extracts (or indeed, the full report) may be included in professional journals provided that suitable acknowledgement is made and the reproduction is not associated with any form of advertising. Applications for commercial reproduction should be addressed to: NIHR Journals Library, National Institute for Health Research, Evaluation, Trials and Studies Coordinating Centre, Alpha House, University of Southampton Science Park, Southampton SO16 7NS, UK.
Health Services and Delivery Research Editor-in-Chief

Professor Ray Fitzpatrick  Professor of Public Health and Primary Care, University of Oxford, UK

NIHR Journals Library Editor-in-Chief

Professor Tom Walley  Director, NIHR Evaluation, Trials and Studies and Director of the HTA Programme, UK

NIHR Journals Library Editors

Professor Ken Stein  Chair of HTA Editorial Board and Professor of Public Health, University of Exeter Medical School, UK

Professor Andree Le May  Chair of NIHR Journals Library Editorial Group (EME, HS&DR, PGfAR, PHR journals)

Dr Martin Ashton-Key  Consultant in Public Health Medicine/Consultant Advisor, NETSCC, UK

Professor Matthias Beck  Chair in Public Sector Management and Subject Leader (Management Group), Queen's University Management School, Queen's University Belfast, UK

Professor Aileen Clarke  Professor of Health Sciences, Warwick Medical School, University of Warwick, UK

Dr Tessa Crilly  Director, Crystal Blue Consulting Ltd, UK

Dr Peter Davidson  Director of NETSCC, HTA, UK

Ms Tara Lamont  Scientific Advisor, NETSCC, UK

Professor Elaine McColl  Director, Newcastle Clinical Trials Unit, Institute of Health and Society, Newcastle University, UK

Professor William McGuire  Professor of Child Health, Hull York Medical School, University of York, UK

Professor Geoffrey Meads  Honorary Professor, Business School, Winchester University and Medical School, University of Warwick, UK

Professor Jane Norman  Professor of Maternal and Fetal Health, University of Edinburgh, UK

Professor John Powell  Consultant Clinical Adviser, National Institute for Health and Care Excellence (NICE), UK

Professor James Raftery  Professor of Health Technology Assessment, Wessex Institute, Faculty of Medicine, University of Southampton, UK

Dr Rob Riemsma  Reviews Manager, Kleijnen Systematic Reviews Ltd, UK

Professor Helen Roberts  Professorial Research Associate, University College London, UK

Professor Helen Snooks  Professor of Health Services Research, Institute of Life Science, College of Medicine, Swansea University, UK

Please visit the website for a list of members of the NIHR Journals Library Board: www.journalslibrary.nihr.ac.uk/about/editors

Editorial contact: nihredit@southampton.ac.uk