# Outpatient services and primary care: scoping review, substudies and international comparisons

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## Scientific summary

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# Scientific summary

This study updates a review undertaken by Roland *et al.* (Roland M, McDonald R, Sibbald B. *Outpatient services and Primary Care: A Scoping Review of Research Into Strategies For Improving Outpatient Effectiveness and Efficiency*. Southampton: National Institute for Health Research Trials and Studies Coordinating Centre; 2006) of research into strategies for improving outpatient effectiveness and efficiency. The 2006 review found that transferring services from secondary to primary care and strategies intended to change the referral behaviour of primary care practitioners were often effective in improving outpatient effectiveness and efficiency, but that relocating specialists to primary care and developing joint working arrangements between primary and secondary clinicians were largely ineffective. Strategies not involving primary care that had the potential to improve outpatient effectiveness and efficiency include the introduction of intermediate care services and the redesign of hospital outpatient services.

As outpatient services have been the focus of considerable attention in the intervening years, the National Institute for Health Research Health Services and Delivery Research programme commissioned an update of this review. The main part of this study relates to a scoping review of the literature on strategies involving primary care that are designed to improve the effectiveness and efficiency of outpatient services. This is followed by reports of five substudies in which we investigate particular initiatives for which the published literature is scarce: referral management centres (RMCs), in-house review of referrals, financial incentives to reduce referrals, consultants with novel types of employment contracts and a substudy on international experience of improving care at the primary–secondary care interface. Finally, we present a substudy on international experience of improving care at the primary–secondary care interface, which may be useful to inform future action in the NHS.

## Scoping review (main study)

The scoping review aimed to update our previous review on the same subject published in 2006. We developed a framework for the review based on a revision of the categories for intervention included in the previous review. Interventions included had to have some impact on specialist/secondary care, and had to report an evaluation of the outpatient interface rather than a simple description of a service. As the aim of this review was to inform NHS policy and practice, we included only articles that reported on an intervention that was potentially transferable to the NHS. The search identified a total of 21,135 records; of these, after the removal of duplicates, the initial screening of titles and abstracts and detailed consideration of 360 references, 184 studies were eligible for inclusion.

The broad conclusions and service implications of the review were as follows.

### *Minor surgery in primary care*

Minor surgery carried out in general practice can be safe and effective, but this depends, critically, on the skill and training of the operator, with some studies suggesting that the technical quality of surgery is lower when operations are carried out by general practitioners (GPs). In some cases, providing minor surgery in primary care may increase demand by addressing previously unmet need. The cost-effectiveness of minor surgery carried out in general practice is likely to depend on local contractual arrangements.

### *Medical clinics in primary care*

The long-term management of major chronic diseases has become routine in UK general practice and the evidence suggests that, with adequate supervision and training, chronic disease management can be both safe and effective in primary care.

### General practitioners with a special interest

Providing that they are well trained and supported, general practitioners with a special interest (GPwSIs) can provide an effective addition to specialist outpatient services associated with high levels of patient satisfaction. Whether or not they provide a cost-effective alternative to outpatient clinics remains unclear and may depend on local service configuration and contractual arrangements. Introducing GPwSIs also has the potential to produce 'supply-induced demand' if GPs' referral thresholds are lowered.

### Discharge from outpatients to primary care

The studies found in this scoping review support the ability of GPs to follow up patients across a range of diagnostic groups as an alternative to hospital follow-up. If patients requiring ongoing follow-up are to be discharged back to primary care, it is important to ensure that general practices have the administrative support and resources so that follow-up protocols can be reliably followed, and that there is adequate support from specialists when queries or problems arise.

### Direct access by general practitioners to diagnostic tests and investigations

A large number of studies have now been carried out on the effects of giving GPs access to a wider range of diagnostic tests. It is clear that GPs can make effective use of a wide range of diagnostic facilities, especially where these are combined with a referral protocol. However, the costs of providing services in the community, compared with in hospital, are uncommonly reported, and the desire to provide services 'closer to home' may conflict with the economies of scale that can be achieved by centralising complex investigations.

### Direct access by general practitioners to specialist services

In some cases (e.g. direct access to audiology for hearing aids) the benefits of bypassing an unnecessary specialist referral are clear-cut. However, in other cases – musculoskeletal services being a common example – the benefits are less certain. Direct access to physical therapies for musculoskeletal problems produces a substantial increase in demand. The rational use of services, including investigations, treatment services such as physiotherapy, and specialist referral, can be addressed by locally agreed pathways which need to be followed for services to be accessed.

### Shifted outpatient clinics

Shifted outpatient clinics involve hospital specialists visiting premises outside the hospital site to provide care, and these clinics are popular with patients. However, specialists generally see fewer patients in a community clinic (partly because they are less likely to be working alongside junior staff) and a significant proportion of patients seen in community-based clinics need to be seen again in hospital. Current policies to move consultant clinics into the community can be justified only if (a) high value is given to patient convenience in relation to NHS costs or (b) community clinics can run at a scale to enable the efficiencies of patient throughput in a hospital clinic to be realised.

### Specialist attachment to primary care teams

These arrangements have a stronger educational focus than shifted outpatient clinics. Few formal evaluations of this type of attachment have been reported: they appear costly and often depend on the enthusiasm of individual specialists to undertake this type of work. There is interest in developing more formal arrangements, for example through the appointment of community geriatricians. It will be important to evaluate such arrangements in the future in comparison with, for example, the appointment of hospital-based specialists.

### Community mental health teams

Collaborative models of mental health care appear effective across a wide spectrum of disorders. These are likely to be most effective when there are regular opportunities for face-to-face contact between members of the mental health team and the primary care team. There is little evidence on the cost-effectiveness of different models of care and, especially given the diversity of local arrangements, little to guide local commissioners on the optimum configuration of services.

### *Telemedicine and telecare*

In countries with very remote rural areas, video consultations continue to be a viable alternative to patients or specialists having to travel very long distances. In England, it is unlikely, in general, that video consultations will be a cost-effective alternative to outpatient clinics. 'Store-and-forward' services for images of skin conditions show promise, although these may be of less value in cases of suspected skin cancer. Very few evaluations of telemedicine present robust economic analyses.

### *Shared care*

Overall, the results of studies of shared care suggest that care can be given in primary care using shared care protocols across a wide range of conditions without loss of quality. Cost savings to patients can be considerable (e.g. in terms of transport costs), but savings to the health service are less clear-cut. There are studies which show net savings by moving from outpatient clinics to a shared-care model, but such savings are not universal and may depend on the nature of the shared-care arrangement.

### *Professional behaviour change*

Guidelines, audit and feedback, and professional education programmes are all relatively ineffective on their own but may be combined, or linked with other interventions. Guidelines are increasingly incorporated into referral pro formas which have to be completed as part of the referral process. Interventions aimed at changing professional behaviour should be aimed at increasing the appropriateness of referrals rather than used as a crude form of demand management.

From a very limited evidence base (two studies), programmes which involve obtaining a second opinion from a colleague prior to referral (in-house review) have the potential to reduce referrals. We also found a few studies (with inconclusive results) of external reviews of referrals (RMCs). Because of the very limited information on both of these interventions, we undertook limited primary data collection on each of these types of intervention; these are reported as separate substudies (substudies 1 and 2).

A number of studies have evaluated interventions which enable GPs to get e-mail or telephone advice from specialists without the need for a face-to-face consultation. E-mail may provide an easier form of contact and gives the opportunity to include test results, images, etc. Studies in which GPs were able to obtain specialist advice by telephone or e-mail suggest that there is a substantial opportunity to reduce the number of patients seen in outpatient clinics.

## Referral management centres (substudy 1)

The term 'referral management centre' describes initiatives ranging from centres designed to help patients select a hospital or specialist (through 'Choose and Book'), to ones designed to provide the most efficient referral pathway (e.g. by arranging investigations to be carried out before a patient sees a specialist), to ones designed explicitly to reduce the numbers of patients seeing a specialist.

In this substudy we conducted a study of RMCs that had a clear implicit or explicit aim of reducing referrals to gain an understanding of the mechanisms through which they work, and the contextual factors that influence both the success with which they are implemented and their perceived effectiveness.

We conducted a qualitative study with a purposive sample of health professionals involved in the commissioning, set-up and running of four RMCs in England and with GPs referring through these centres. Semistructured interviews conducted with 18 professionals were audio recorded and transcribed, and data were analysed thematically.

Four themes emerged from the interview data: the diversity and evolving nature of the aims and functions of RMCs; the impact of practical and administrative difficulties; the challenge of stakeholder buy-in; and the dependence of perceived effectiveness on the aims and priorities of the scheme. Many schemes were judged by those involved to be successful, despite limited evidence for reduced referral rates or savings.

Future schemes need to have clear aims and to identify indicators of success from the outset. There is an important need for further research that evaluates the effectiveness and cost-effectiveness of individual models of RMCs.

## In-house referral schemes (substudy 2)

We interviewed three or four stakeholders engaged in each of three in-house schemes in which referrals were reviewed within the practice before being sent out. Each scheme had a different method of in-house review of referrals: in one, all referral letters were reviewed by a second GP before being sent on to secondary care; in the second, all letters were reviewed at a practice meeting held twice weekly; and, in the third, only referrals about which the referring GP had doubts were reviewed.

The study showed potential benefits of in-house review. These included ensuring that the most appropriate referral pathway had been selected and that local guidelines had been met, in both cases by sharing local knowledge among GPs within the practice. In-house review of referrals also increased communication between GPs, enabling them to learn from each other's clinical practice. However, there was a significant cost to the schemes, especially in instances where all referrals were reviewed. Interviewees also reported greater impact in the early stages of the schemes, with less impact as time went on; this was possibly because GPs gradually improved their adherence to common standards and guidelines for referral.

## Financial incentives to reduce referrals (substudy 3)

In our original application, we identified a need to determine whether or not practices had explicit financial incentives to reduce referrals, as this could present them with potential conflicts of interest in terms of providing optimal care for their patients. When *Quality Premium 2013/14 – Guidance for CCGs* [Clinical Commissioning Groups] was published in 2013 (NHS England. *Quality Premium 2013/14 – Guidance for CCGs*. NHS England; 2013), it became clear that none of the performance indicators being passed down from NHS England related to outpatient attendance (in contrast to a focus on reducing inpatient care). It was, therefore, unlikely that that we would find direct financial incentives to reduce outpatient referrals being passed down to GPs. This was confirmed in data that we collected from four CCGs, in which we found no areas where GPs had a direct financial incentive to reduce referrals.

## Consultants with novel types of employment contract (substudy 4)

One of the limitations of traditional approaches to involving specialists in the community is that specialists who are still employed by acute trusts tend to get drawn back into hospital work and have no real incentive to engage actively with clinicians in primary care or to develop better pathways between primary and secondary care. In this substudy we selected novel contract arrangements in which consultants hold their contract solely, or for the majority of their time, with a community trust. We conducted 14 qualitative interviews with community-based consultants across three specialties. We found that community-based posts are often developed or taken up by highly motivated individuals who reported benefits in terms of being able to provide more appropriate care for patients. However, the long-term development of these posts may be constrained by their idiosyncratic nature, a lack of clarity around roles, challenges to professional identity and a lack of training opportunities.

## International comparisons (substudy 5)

We explored experiences in Denmark, Finland, the Netherlands and Spain of models of care designed to enhance the effectiveness of services at the primary–secondary care interface. All four countries have engaged in reform efforts to reduce reliance on hospital-based service delivery and have put approaches and mechanisms in place to reduce referrals from primary to secondary care. Several common approaches emerged, including the use of financial mechanisms and incentives, transfer, relocation, and the use of guidelines and protocols. The nature and scope of these approaches varies widely, reflecting the specific features of the organisation and delivery of primary care and their evolution over time in each country. With the possible exception of financial incentives, the lack of robust evidence of effect of the different approaches limits the lessons that can be drawn for the NHS. However, it is notable that 'interventionist' approaches targeting referral rates, such as in-house review and RMCs, which are implemented in England, are not common or being considered in any of the countries reviewed here.

## Patient and public involvement

Two patients were involved in the study, and met mid-way through the study to discuss a draft report and the progress on the various aspects of the study. The patients commented on the relevance and accessibility of the work to patients and members of the public and discussed dissemination plans. The patients further commented on the draft report towards the end of the study, making suggestions that were useful in finalising of the report.

## Summary of conclusions from scoping review and substudies

Our literature review uncovered a significant number of new papers on strategies involving primary care that are designed to improve the effectiveness and efficiency of outpatient services. Studies varied widely in quality, however, and as robust economic evaluations were rarely reported the cost-effectiveness of many interventions remains unclear. Through the literature review and substudies, we identified a wide range of new approaches which substitute for conventional outpatient clinics and have the potential to provide high-quality care in community settings. Findings largely supported the 2006 review, providing further evidence for the benefits of the transfer of some outpatient services to primary care. Of particular note was support for improved communication between GPs and specialists, for example through the use store-and-forward telemedicine or requests for specialist advice by e-mail. Further research is needed to better understand the costs and benefits of these additional forms of communication. There remained limited evidence for the benefits of relocation of specialists or shared-care methods, as advocated in the NHS Five Year Forward View, and, in particular, cost-effectiveness evidence for these interventions was very limited. We found an increased evidence base for professional behaviour-change interventions. In particular, the use of RMCs and in-house GP review of referrals is becoming increasingly common, and further evidence is required to understand the cost-effectiveness of these interventions.

## Limitations of the study

This study comprised a scoping review of the literature and a small number of substudies. We restricted our literature search to literature judged to be relevant to the NHS context, and we summarised literature across a review framework based on that developed in the previous 2006 review on this topic. Our substudies were intended to supplement the evidence in areas in which published literature was scarce. However, these were of necessity small in scale and cannot present comprehensive evaluations of interventions. The general absence of cost data in the literature was a serious problem in terms of trying to draw conclusions about the cost-effectiveness of most of the interventions studied.

In general, we conclude that:

- High-quality care in the community can be provided for many conditions and is popular with patients.
- Provision of care in the community may not be cheaper than outpatient services. The limited cost-effectiveness evidence we found was inconclusive, with a number of studies suggesting that interventions might increase the cost of care provision. The assumption that care moved into the community is cheaper may be incorrect because of supply-induced demand, or because unmet need is addressed by new forms of care, or because there is a loss of efficiencies of scale found when services are provided in hospitals. Evaluations of new forms of community-based care (whether formal research studies or local evaluations) need to take into account the impact of changes on overall health-care utilisation (i.e. primary and secondary care costs combined).
- Evidence from this study suggests that further shifts of care into the community can only be justified if (a) high value is given to patient convenience in relation to NHS costs or (b) community care can be provided in a way that reduces overall health-care costs.

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