

How can dermatology services meet current and future patient needs, while ensuring quality of care is not compromised and access is equitable across the UK?

Skin conditions are among the most common diseases encountered by health professionals. In an average clinic a GP can expect to see several people with skin disease a day and, in an increasing number of cases, they have the challenging task of assessing whether the patient has a potential malignancy. In addition, the visibility and chronic nature of many non life-threatening skin diseases such as eczema, acne and psoriasis can have profound impact on the psychological well-being of a patient and their quality of life. Yet skin disease rarely features in policy discussions and, more worrying still, has had a relatively low priority in medical training leaving many GPs poorly equipped to manage a significant proportion of their daily workload.

We have welcomed this opportunity to learn more about this important area of service and to work with the British Association of Dermatologists and others to consider its future.

Dermatology is predominantly an outpatient service and offers an interesting indicator for how other services with a high proportion of outpatient activity may develop. Dermatology services in some parts of the country are already leading new models of care to address the challenges of rising demand, limited workforce, geography and financial constraints. We outline some of these services, highlighting the need to make better use of the existing workforce and the opportunities to embrace emerging technologies and promote closer working and education between specialists and primary care.

We hope the following report is taken and discussed by the profession and used as an opportunity to debate and challenge the current service models and to move forward into providing sustainable services to meet an ever increasing demand for skin services.

Nigel Edwards and Candace Imison

Key findings March 2014

Introduction

In March 2013 the British Association of Dermatologists asked The King's Fund to explore the current challenges facing dermatology services and identify opportunities for the future. Between April 2013 and December 2013 The King's Fund engaged a wide range of stakeholders from within and outside dermatology to help us address this question. This engagement activity included:

- a survey of all BAD's membership
- stakeholder interviews with consultants at all levels; specialty doctors; specialist nurses; GPs with a Special Interest (GPwSIs); GPs; patients and patient organisations; the independent sector; and commissioners
- visits to specialist dermatology services
- workshops that brought together more than 80 stakeholders to discuss emerging issues, areas of consensus and divergence, and options for the future.

The following report outlines the key findings from our research; there is a more detailed source report that includes the underpinning literature review. Although much of the report relates to England, its observations and conclusions are also relevant to the devolved nations.

Executive Summary

Dermatology represents an important part of NHS provision. There are approximately 13 million GP consultations for skin conditions a year¹ and 716,830² new referrals and yet this important area is poorly understood and has received comparatively little attention. Commissioning has often been poor. Inadequate planning has left gaps in the workforce. The 40,000 GPs³ managing this workload have received little training in dermatology and there are only 650⁴ consultants to advise them and provide the more specialist care.

There are opportunities to improve these services but also an increasingly urgent need to respond to: growing demand and expectations; rising costs of new treatments; inconsistent quality in diagnosis and treatment (particularly within primary care); large variations in access to specialist care; issues with patient experience; and shortages, and an uneven distribution, of senior medical and nursing staff. There is a challenge for primary care where there are some of the greatest opportunities for improving the quality of care for people with skin conditions.

This report looks at these issues and the options for addressing them. Dermatology is a useful case study that can shed light on thinking for other outpatient-based services and how these can develop new delivery models that make better use of limited specialist skills.

We make a number of recommendations in this key findings report and the larger supporting source report which accompanies this document. These suggest areas that require attention both nationally and locally and significant opportunities for improvement.

- 1) There are significant opportunities to improve and support better self-care and self-management including medication adherence. In particular, increasing the use of pharmacies for advice and follow up and providing better web resources for the public.
- 2) There is an urgent need to improve the quality of dermatology knowledge in primary care. The development of experts in larger practices; the use of peer review and decision-support; improved education and training, including targeted continuing professional development, could help address this deficit.
- 3) There is a need to build a much stronger bridge between specialist and primary care services, with clear service specifications and protocols to ensure patients are streamed to the right service. GPs should also be able to call on specialist advice and support as an alternative to referral. This advice can come from consultants but may also be provided by specialist nurses, specialty doctors or GPwSIs.
- 4) There are some important gaps in services that need to be addressed, particularly the need to provide better psychological support to patients with skin conditions. This requires changes in training curricula as well as providing dedicated staff with specific skills in this area.
- 5) Redesigning services is necessary to make better use of scarce expertise. Segmenting the overall workload and deploying staff such as GPwSIs, specialist nurses and specialty doctors offer opportunities to improve the flow of patients and to create new and more effective models. This should include segmentation by treatment type as well as thinking about how referral, diagnosis, treatment and follow up should be managed. For example, there is evidence that a significant proportion of the workload is follow-up care, which can be managed differently to referral and diagnosis, where there is a need for more specialist expertise.
- 6) Networked models and some further centralisation of some specialist services may offer better solutions than current models where specialist expertise is spread relatively thinly and has weak links to primary and other specialist care.
- 7) There are opportunities to use tele-dermatology to support primary care, provide education, improve the triage of referrals and provide

better access to specialist opinion in rural and remote areas. There remain a number of obstacles to effective implementation.

- 8) The impact of planned changes in training proposed in the Shape of Training Report need consideration as the priority it puts on more generalist training may magnify the medical workforce gap in specialist services such as dermatology.
- 9) Services should extend the role of nurses, specialist doctors, GPs and pharmacists to help bridge the workforce gap and to improve services. In some places there is also the potential to review consultant job plans to release more clinical time.
- 10) The data collected about dermatology services needs to be improved. There would also be value in encouraging the formal evaluation of innovative dermatology models, as there is limited data and analysis on outcomes of different dermatology service models.
- 11) Our work exposed major concerns about the current quality of commissioning for dermatology services and the lack of specialist knowledge among commissioners. Commissioning should facilitate the new models of care with tariffs that reflect and encourage new patient-centred ways of working. It should not be driven by short-term tactical decisions designed to minimise the price paid rather than to improve value for patients; there is a danger of service fragmentation and of models of care that make false economies (i.e. fail to take account of whole health economy costs) or in the worst case threaten the quality of care. We saw a number of examples of this.

The context for dermatology - growing challenges

Demand pressures

It is estimated that each year 54% of the population are affected by skin disease, although 69% of these will self-care.^{5,6} However, a significant number, 13 million, will see their GP and 5.5% of these are referred for specialist advice. The majority (80%) of skin consultations with GPs each year are for the 10 most common skin conditions, many of which are managed appropriately in primary care.^{7,8} The number of referrals to specialist care, particularly for diagnosis, is rising. Over the 5 years from 2007/8, there was a 15.5% increase in GP referrals for dermatology.⁹

There is particularly increasing demand from patients with skin cancer. Although mortality rates from skin conditions are comparatively low, skin cancer rates are rising as the population ages; just under half of specialist activity now relates to the diagnosis and management of skin lesions.¹⁰ It should also be noted that only first tumours are recorded on cancer registries, so the full extent of skin cancer may not be adequately captured.¹¹

The ageing population is expected to put further pressure on the specialty, as some common conditions, particularly skin cancer, occur much more frequently in the elderly, and are often more difficult to treat in the presence of co-morbidities (which are associated with age).¹²

It is also likely that demand for dermatology services will increase in line with people's rising expectations about skin, hair, and nail appearance (this was highlighted repeatedly in workshops as "the Embarrassing Bodies effect"¹³).

Workforce concerns

There is an uneven distribution of all types of specialist staff, resulting in unmet patient need. Based on recommended numbers of dermatologists from the Royal College of Physicians no region has enough dermatologist consultants, and the South East Coast, North East, and East Midlands have the lowest coverage of consultants. There is a shortage of consultants, particularly in rural or remote areas and there are areas with a high number of consultant vacancies and high use of locums – just over 50% of respondents to a survey undertaken for this project felt that there were not enough consultant dermatologists. However, a similar proportion of survey respondents advocated that new models of working should be explored, spreading the limited consultant resource further and using it more efficiently.

The speciality doctors, specialist nurses and GPwSIs form a significant component of the dermatology workforce. However, in the absence of

any national data for these staff groups, we have not been able to determine exactly how many there are in total or their geographical spread. It is also unclear how well integrated they are into the consultant-led service. Overall there is a lack of clear workforce strategies for these staff including: recruitment; retention; formalising training; accreditation; career development and succession planning, though steps are being taken to improve the position for GPwSIs. Where services have been successfully developed using nurses, GPwSIs, and specialty doctors and activity shifted from the consultants it has often been the result of an individual's enthusiasm and expertise, particularly the local consultants.

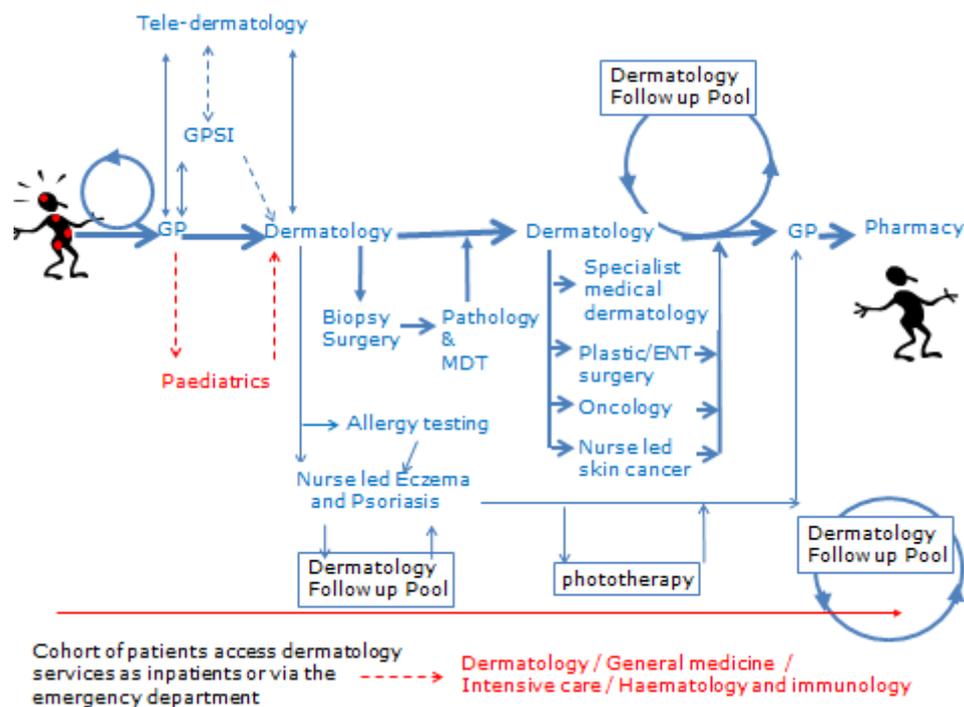
Dermatology has not been a compulsory part of the GP training, leaving many GPs lacking the necessary diagnostic skills to deal with what is a significant proportion of their workload.

There are also limited numbers of specialist dermatology hospital pharmacists. They could be a valuable source of specialist expertise but there is a lack of clarity around their role as part of a consultant-led multi-disciplinary specialist dermatology service.

Service issues

A schematic of current dermatology service is shown in figure 1 below.

Figure 1: Process map of current dermatology services



The majority of patients with dermatology conditions present and are managed by their GPs or local pharmacists. This may involve multiple follow-up appointments in primary care. This process map doesn't show

the detailed steps, complexities and delays in the administrative processes. Where the diagnosis or treatment is uncertain, patients are referred to a dermatology service as planned 'elective' cases.

A critical few present as emergencies that require management by paediatric or general medical clinicians, including ITU, and these patients are either managed directly by the dermatologists with input from these specialties or vice versa. This depends on the availability of junior medical staff in dermatology training posts to co-ordinate the management plan.

The majority of patients referred by their GPs will be managed electively entirely by dermatologists. However, the dermatologists require support from the functional departments (especially microbiology, histopathology, clinical photography). A few patients will be re-routed into other clinical specialties, for example, plastic or head and neck surgery, and the very few with malignancies that cannot be managed within dermatology will be referred to other clinical subspecialties such as oncology or haematology.

The critical point for these routing decisions is the Multidisciplinary Team Meeting (MDT) at which the clinical history, appearance, blood results, microbiology and histopathology are reviewed with the dermatologists, specialist nurses, pathologists and surgeons. In addition, resistant eczema, psoriasis and other rare chronic autoimmune conditions with skin pathology have been revolutionised by the use of immunosuppressant drugs. However, these patients now require long-term monitoring to prevent the iatrogenic complications such as kidney failure.

Many of the service concerns are interdependent with the workforce issues. Most notably our work has identified what some describe as a 'medical care gap',¹⁴ which results in a significant number of patients who could be treated in primary care being referred unnecessarily for a consultant appointment. Based on available research it has been suggested that over 20% of referrals to specialist care could be dealt with in primary care;^{15,16} there is also concern that variation in diagnosis and management in primary care could result in patients who need to be referred to specialist care being missed, or being misdiagnosed and mismanaged.

Given shortfalls in training it is unsurprising that there is significant variation in referral and prescription rates between areas (illustrated in the graphs below; further analysis of the variation is located in the source report).

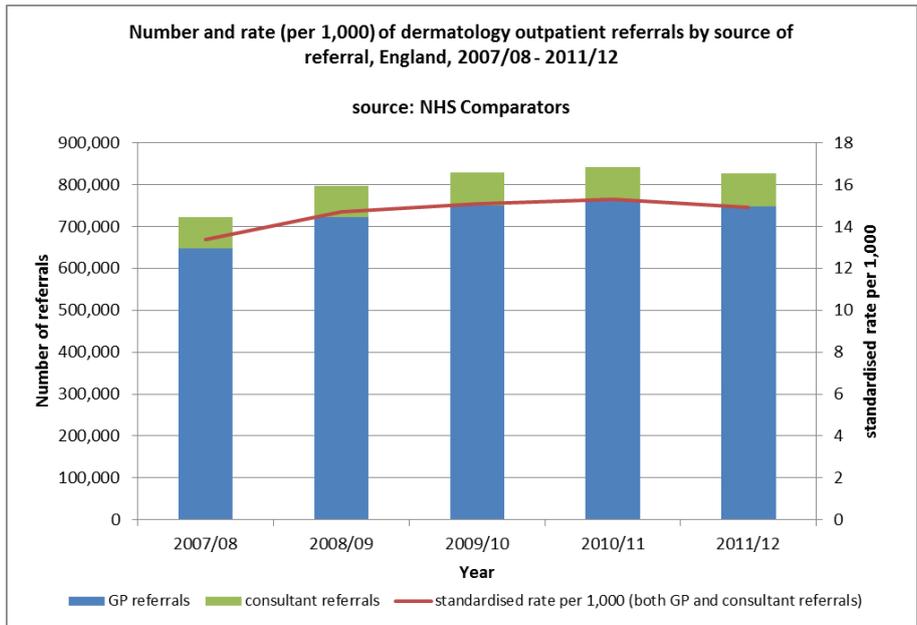


Figure 1: Source - The King's Fund analysis using NHS Comparators

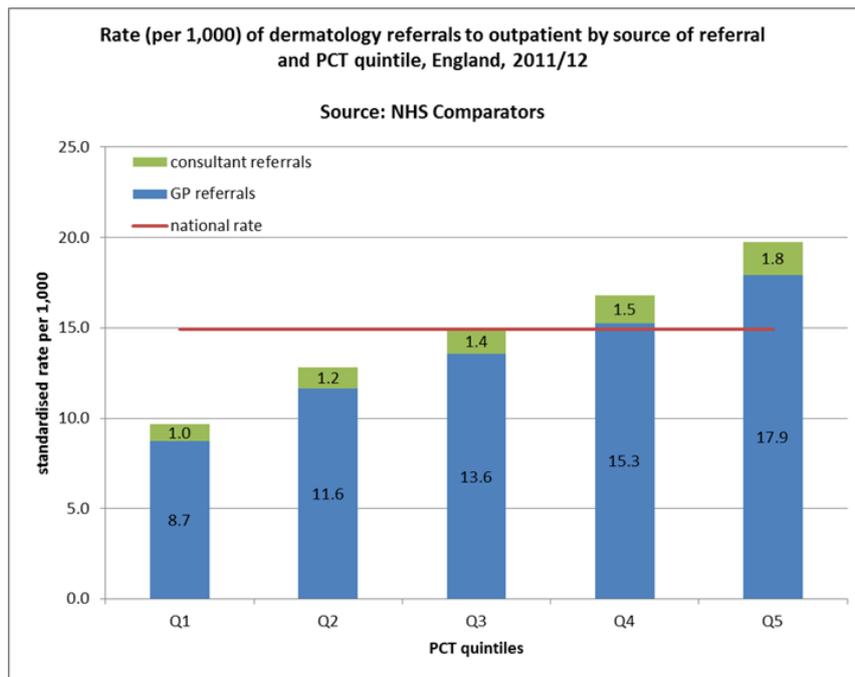


Figure 2: Source - The King's Fund analysis using NHS Comparators

The BAD have developed minimum standards for a number of service areas and are continually working on further standards. Limited studies have shown there is variation against minimum standards.

There is also significant variation in the composition of specialist teams and in the services team members are enabled to provide. For example, the specialist nursing role varies from a supplement to the work of consultants to one where they can safely substitute for consultants and specialty doctors. The use of specialty doctors is also variable; they can

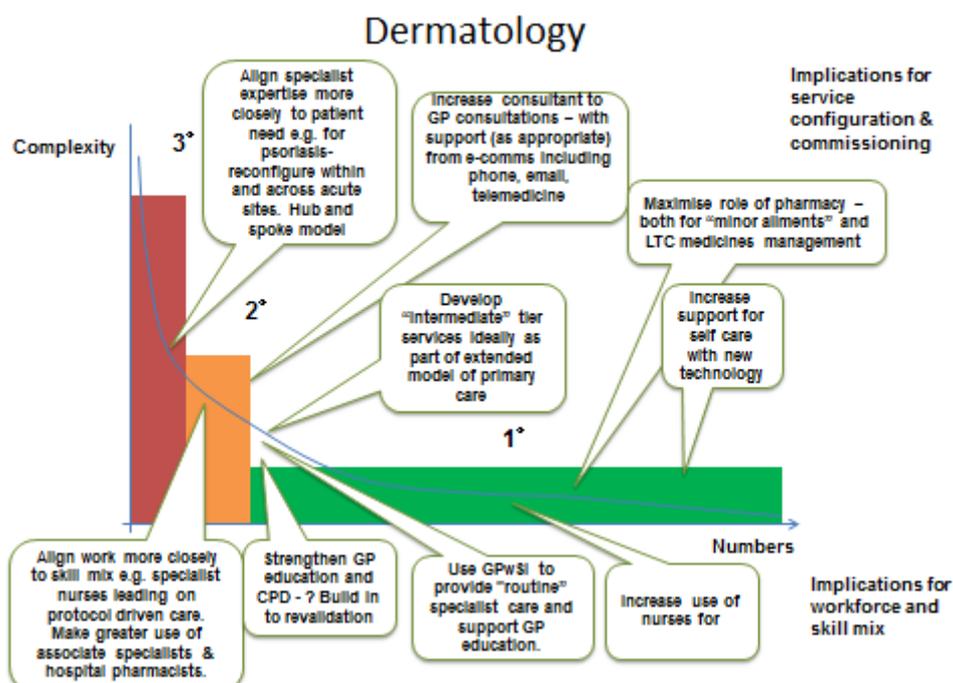
play an important part in addressing the 'care gap' between primary and specialist care.

There are also examples of GPwSIs in dermatology providing a valuable role in the specialist team; unfortunately there are also examples where they have increased referrals, increased overall costs and created quality concerns. Success of the GPwSI role in dermatology is dependent on it working with the specialist dermatology team in a very integrated way, although this does not require them to be part of the same organisation.

The psychological needs of patients are largely unmet. Many patients suffering from a skin disease also suffer from pronounced psychological distress, particularly those with chronic conditions. Although there are some services and individual clinicians that offer a holistic approach to skin conditions, overall mental health provision for dermatology patients is poor.

Redesigning care

It is clear that there are opportunities to redesign care across the whole continuum of care. These changes are necessary to meet the challenge of growing demand and workforce shortages and offer opportunities to improve quality and efficiency. The proposed changes in the service models across the care continuum are summarised in the diagram below:



During our research the option of an 'office dermatology' model (similar to that found in France) was suggested to provide intermediary services, where patients could self-refer if they had a skin condition. However, the expansion in the workforce required to achieve this is so large that it is not a practical option and would be unaffordable. There was also limited support for this as it could fragment the service, risk patients not being seen holistically and result in de-skilling of GPs in skin conditions.

We suggest that there is scope for experimentation with a range of new service delivery models designed to increase access and productivity. We explore these ideas in more detail and identify the key enabling strategies required to support them.

Supporting self-care

The majority of people with dermatological conditions self-care: some estimates put this as high as 86%.¹⁷ Although there are a number of good information sources for patients these are not well signposted. Patient support groups are well developed in dermatology and play an important role in the supply of relevant patient-focussed information.

There have also been several studies highlighting concern around the low levels of patient adherence to dermatological treatment.^{18,19,20} One study found that reduced adherence to dermatological treatment occurs in 34-45% of patients.²¹ It is likely that the percentage of patients who practice truly optimal treatment in their daily life is very low.

Pharmacists could play a valuable role in helping people to self-care for minor conditions as well as providing advice on more specialist medications to help improve adherence. There are opportunities for BAD to work with partners (e.g. The Royal Pharmaceutical Society and pharmaceutical companies) to develop training modules on the five skin conditions most commonly seen by community pharmacists.

There are also many opportunities to provide more web resources for patients. For example, BAD could develop a patient portal with simple algorithms to put the patient in the 'ball park' of diagnosis (this could be linked to other appropriate patient websites). They could also produce patient education videos on common skin conditions, to support patients after diagnosis – focusing on application of the common treatments.

Recommendation

There are significant opportunities to improve and support better self-care and self-management including medication adherence, in particular, increasing the use of pharmacies, for advice and follow up, and providing better web resources for the public.

Primary care capability

GPs should be managing the common skin conditions of their patients but the 'medical care' gap referred to above is a key issue. We identified diagnosis of skin conditions in primary care as a serious area of weakness that can result in multiple GP visits and different treatments being tried before an accurate diagnosis is obtained. Practices or groups of practices would benefit from having a GP with further training and links to the consultant service to help them keep up to date – this is explored below. There was limited enthusiasm for using decision support tools to improve diagnosis. However, web-based tools are a means to support GP decision-making and diagnosis. Peer review and audit have also been shown to be effective in improving diagnosis and referral.

Given the high proportion of GP consultations that relate to skin conditions and the ability to manage many of the referrals to specialist care within general practice our main recommendation is to urgently address the level of training in medical education and continuing professional development in general practice. This is a considerable challenge as there are already pressures on the general practice curriculum and this is not an issue unique to dermatology.

A key priority should be developing a united professional voice and consistent communication campaign to lobby for medical undergraduate training and compulsory dermatology training and education for trainee GPs, as well as a clear view about what that training should look like.

Training and education for current general practitioners should consider the following options:

- promoting competencies and training linked to the GP revalidation system
- promoting existing e-learning training packages and resources for the most commonly seen skin problems
- training and education from GP peers, for example, from GPwSIs, who can tailor training to the most common skin conditions as well as helping to distinguish between potentially malignant and non-malignant disease
- developing 'GP champions' – where a GP from each practice is identified as the main point of contact for the practice providing education, feedback and key messages from the wider dermatology service (see case study below).

Chesterfield - GPs engagement, training and education in dermatology

The dermatology specialist team comprises:

- 3 consultants and 1 associate specialist
- 2 nurse practitioners
- 8 nurses, 4 health care assistants

- 5-10 GPs interested in dermatology

Core group of GPs

Chesterfield has formed a core group of GPs trained by dermatologists who will: teach other GPs; link to secondary and tertiary care dermatologists; develop guidelines and protocols for management of common skin diseases in the community; run community dermatology clinics with no consultant supervision.

GP training

The consultants run GP training programmes in general dermatology and skin surgery. GP trainees attend clinics and MDTs and can bring patients cases that they have found challenging.

GP champions programme

Each practice in the catchment area nominates a dermatology GP champion who undergoes a teaching programme. Dermatology GP champions must attend 4-6 training sessions per year and are expected to disseminate the knowledge gained to practice partners.

GP trainees

There are GP registrar Independent Learning Directive placements in dermatology; the GP registrar attends 2-3 days a week in dermatology for 4 months.

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Recommendation

There is an urgent need to improve the quality of dermatology knowledge in primary care. The development of experts in larger practices; the use of peer review and decision-support; improved education and training, including targeted continuing professional development, could help address this deficit. We reviewed a computer aided diagnostic system used by the Veteran's Administration and other health systems in the USA which offered a low cost and easy to use product that could support this – further investigation of its application in the UK is required.²²

Referral and access to specialist care and advice

The referral process would be improved if each component of specialist services had a clear specification and there were supporting protocols to stream patients to the right service. There should also be arrangements for patients who are referred to the wrong level of care to be seamlessly moved on without the need for a further referral. This should also include immediate clinician-to-clinician feedback where there is a need to improve referral decisions or where alternative management options could be considered. These systems are likely to be more effective and cheaper than standalone referral management services.

Recommendation

There is a need to build a much stronger bridge between specialist and primary care services, with clear service specifications and protocols to ensure patients are streamed to the right service. GPs should also be able to call on specialist advice and support as an alternative to referral. This advice can come from consultants but may also be provided by specialist nurses, specialty doctors or GPwSIs.

Addressing the psychological needs of patients

Consultants are often under time pressure and so can only focus on the skin condition in front of them rather than addressing the patient's wider needs and asking them how it is affecting their daily lives. There are very few dedicated psychologists working jointly in dermatology clinics. There is also anecdotal evidence that GPs lack a full understanding of the psychological and social impacts of chronic skin conditions.

Recommendation

There are some important gaps in services that need to be addressed, particularly the need to provide better psychological support to patients with skin conditions. This requires changes in training curricula as well as provision of dedicated staff with specific skills in this area.

New service models

Our work has demonstrated that the dermatology workload would benefit from a more sophisticated segmentation than 'should or should not be referred to secondary care'. There could be value in developing models that stream or segment the workload, particularly the establishment of: consultant-led intermediary services; centralised specialist teams supporting wider networks of care; and skin lesion centres – these options are discussed below. There are a number of other models (including the use of an 'attending model') that are discussed in the source report.

Consultant-led intermediary care services

There was strong backing for intermediary services that could support primary care and improve the diagnosis and treatment of skin conditions. This requires a coordinated team of speciality doctors, GPwSIs and specialist nurses with a clear set of referral and management criteria to prevent the danger of these services creating supply-induced demand. This would make the limited consultant workforce go further, and could be particularly valuable in remote areas and areas of high consultant vacancies (alongside supplementary tele-dermatology services).

The intermediary care service should have a critical volume of patients and be able to offer the range of services – e.g. patch testing, phototherapy, liquid nitrogen. The consultant(s) would be available in an attending model, seeing only the complex cases but available to give advice and guidance to GPwSI and speciality doctors. Some duplication of expensive equipment may be required but the benefits in terms of improved patient flow and reduced waiting may justify this; careful analysis will be required.

The intermediary service should embed timely feedback and communication to GPs, including about the patient's management plan, to facilitate knowledge transfer and engage GPs in dermatological conditions.

Services should have consultant supervision, agreed referral pathways and common clinical governance. GPwSIs are also effective in forming a link to wider primary care and there are good examples of using this to improve referral quality. Succession planning for GPwSI services is an issue as services have often developed around an individual's enthusiasm and expertise.

Recommendation

Redesigning services is necessary to make better use of scarce expertise. Segmenting the overall workload, and deploying staff such as GPwSIs, specialist nurses and specialty doctors, offers opportunities to improve the flow of patients and to create new and more effective models. This should

include segmentation by treatment type as well as thinking about how referral, diagnosis, treatment and follow up should be managed. For example, there is evidence that a significant proportion of the workload is follow-up care, which can be managed differently to referral and diagnosis, where there is a need for more specialist expertise.

Centralised specialist teams and networks of care

There may be scope for the further centralisation of specialist services to: support changes in workforce numbers, and enable more efficient models to be adopted (e.g. 1:6 rotations of consultants – resulting in 1 week in 6 covering wards, emergencies and tele-dermatology, so 5 are not disrupted); allow for changes in demand to be spread across a wider number of specialists; improve audit and clinical governance; promote collegiate working, sharing of skills and experience; promote sub-specialisation; and have the associated management and infrastructure support of a larger unit. These do not necessarily have to be formally merged units; some of the benefits are likely to be achieved through strong collaborative working and a networked arrangement.

Recommendation

Networked models and further centralisation of some specialist services may offer better solutions than current models where specialist expertise is spread relatively thinly and has weak links to primary and other specialist care.

Skin lesion centres

A more radical option that received some support was the development of consultant-supervised 'skin lesion centres' – these would cover large populations and pull all skin lesion referrals together in specialist centres to improve quality and efficiency. They would offer a one-stop service from diagnosis to surgery. Services providing high volumes of a narrow range of procedures can develop very streamlined and standardised processes and it is much easier to apply methods to continually drive efficiency and improve quality.

Training other specialists to undertake diagnosis and treatment could also be considered, freeing up consultant time. These centres could also triage referrals through tele-dermatology to reduce the number of unsuitable referrals. They could also develop new staff roles e.g. nurse surgeons trained in pattern recognition.

Tele-dermatology

There are a lot of misconceptions surrounding tele-dermatology, including concerns amongst some dermatologists that it may lead to diagnostic error, or out-sourcing of services to remote private providers. Similarly,

commissioners may be under the misconception that tele-dermatology is a cheap alternative to face-to-face referral for the majority of patients with skin disease, whereas in fact it can never replace a consultant-led out-patient dermatology service, but can supplement it.

Dr Carolyn Charman, Consultant Dermatologist, Royal Devon and Exeter NHS Foundation Trust

There is potential for tele-dermatology to make an important contribution to the redesign of services models in three distinct areas:

- supporting triage and referral management – to facilitate patients being streamed into the right service (e.g. GPwSI, nurse clinics, surgical lists, outpatient clinics, or managed in primary care with advice and guidance)
- education and communication to primary care – to improve the knowledge of GPs and support patients being managed appropriately within primary care
- a substitute for an outpatient appointment (particularly in rural and remote areas and areas with high consultant vacancies) – tele-dermatology should be supplementary to a specialist service, but there are areas where a robust tele-dermatology service could enable limited consultant resources to go further.

These have different objectives and require different types of implementation and supporting technology and processes. There is now an emerging body of knowledge about how to deploy technology to support this but it is easy to do this poorly. Issues that need to be considered include the following.

- The danger of supply-induced demand – There need to be clear protocols for referral to ensure referrers do not use the service for cases where they would have been able to manage the patient had the technology not been available.
- While there are examples of remote tele-dermatology working satisfactorily it is important for this to be linked to local services so that patients can be followed up. Services run as adjuncts to local services as a supplementary offer or a way of extending reach over rural areas seem to work better than standalone services.
- Pictures need to be of a reasonable quality, which has training and equipment implications; although the technology is rapidly improving picture quality can be an issue. For some conditions the history and context of the patient also matter and not all tele-dermatology can be reduced to images.
- Clinician-to-clinician support (either by email or real time communication) is valuable but there seems to be a learning effect in that after a while the use of the service declines.

- There needs to be robust governance to underpin the service and a focus on continuing to review performance and audit referrals, diagnosis and outcome data.
- Mechanisms such a development of a tariff, incorporation into consultant job plans and commissioner and GP engagement are important and often are an obstacle.

A summary of the case study of the tele-dermatology service provided by Royal Devon and Exeter NHS Foundation Trust below aims to address some of the common myths around tele-dermatology services, the advantages of the service and critical success factors (the full case study is in the source report).

Royal Devon and Exeter NHS Foundation Trust Choose and Book tele-dermatology service

Since 2011 a consultant-led tele-dermatology service run by the dermatology department at the Royal Devon and Exeter NHS Foundation Trust (RD&E) using the 'Advice and Guidance' arm of Choose and Book. Details of the service are available through the RD&E dermatology website.²³ The service was established to address the growing demand for dermatology referrals, and to provide specialist advice to more rural and remote practices.

Advantages of the service

- Significantly reduced tariff per tele-dermatology case (£45 per case) compared to face-to-face outpatient referral.
- Good use of limited consultant resources; 30 tele-dermatology cases = 1 PA in consultant job plan.
- Rapid access to consultant dermatologist advice - 2 days compared to the average wait for a routine new outpatient appointment of 4-8 weeks.
- 66% of patients selected for referral by the tele-dermatology route can be managed in the community with advice and guidance.
- Patients with non-melanoma skin cancer can be triaged directly onto a skin surgery list, with significant tariff savings and more efficient patient pathways, especially for elderly patients travelling long distances.
- Rapid dermatology educational feedback to improve dermatological knowledge in general practice, with the ability to attach electronic patient advice sheets or guidelines (e.g. from BAD) to tele-dermatology replies.
- Patient images (consented) can be used for dermatology educational feedback sessions to GPs, dermatology trainees and other health care professionals.
- The service is compliant with recently published UK Quality Standards for Tele-dermatology developed by the Department of Health and

published by Primary Care Commissioning.²⁴

Critical success factors to implementation

- Consultant enthusiasm for setting up the service.
- Close collaboration with other secondary care services (medical photography, IT services, referral management services, Choose and Book team) and primary care services (commissioners, IT services, local GPs).
- Tariff negotiation and incorporation into consultant job plans.
- GP engagement in the service was initially promoted by temporary secondment of a Senior Information Specialist from the Delivery Directorate of the Primary Care Trust, who visited practices to promote use of the Choose and Book Advice and Guidance Service.
- On-going monthly reports of tele-dermatology referrals per practice, response times, and number of patients requiring onward referral to secondary care or community GPSI services.
- Audit of service referrals, patient outcomes and GP satisfaction and impact of the service.

Review of first 1000 tele-dermatology referrals

The dermatology department has received over 1500 tele-dermatology referrals to date. Rates have continued to rise, with an average of 60-90 referrals a month. Analysis of 6-month patient outcome data on the first 1000 tele-dermatology referrals:

- 60% of referrals are managed in the GP surgery following tele-dermatology referral
- 6% are referred to community GPwSI dermatology services
- 22% are seen in the dermatology clinic at the RD&E within 6 months of their tele-dermatology referral
- 12% of patients are triaged directly for skin surgery (e.g. patients with basal cell carcinomas on high-risk sites).

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Recommendation

There are opportunities to use tele-dermatology to support primary care, provide education, improve the triage of referrals and to provide better access to specialist opinion in rural and remote areas. There remain a number of obstacles to effective implementation. It is not a panacea but can support new models of care, its potential should be explored further.

Workforce planning and development

The British Association of Dermatologists sees an urgent need to expand the consultant workforce. However, addressing the current gaps in the consultant workforce by increasing consultant numbers is an expensive option that has a long lag time (due to the length of training), and there is no guarantee that more consultant numbers will address differences in geographical inequity. The recently published Shape of Training report is also likely to make it harder rather than easier to increase the number of dermatology consultants.

Whilst some expansion of the consultant workforce may be feasible, redesigning the current care pathways, as we have described earlier may also offer some more immediate and financially sustainable solutions. This will require developing other members of the specialist dermatology team such as speciality doctors, GPWSIs and specialist nurses, to enable limited consultant resources to stretch further and be used more efficiently. It is also likely to change the way consultants work and their job plans including the amount of time consultants devote to clinical work and the mix of patients that they see.

There are increasing numbers of locums, and market forces encourage doctors with CCT to become locums and encourage permanent consultants to take early retirement and become locum consultants. BAD data suggests that locum consultants may not possess the same level of accreditation as consultants on the GMC Specialist Register and can be in posts for long periods. Locum posts should be limited to 6 or 12 months. Increasing the level of financial reward or offering improved terms of service (such as early retirement) for working in remote areas or areas with high consultant vacancies could also be a way of addressing these gaps.

Key to the development of future options for dermatology is a focus on: training; accreditation; career pathway; and succession planning for GPWSIs, speciality doctors and specialist nurses.

Specialty doctors are a significant component of the specialist workforce, and in particular they could play a leadership role in intermediary services as well as providing education and training to GPs. There should be a focus on:

- formalising the entry points into the specialty doctor grade
- formalising and investing in the education and training of specialty doctors – this could be based on a modular approach to training with underpinning accreditation
- giving much better recognition to these important posts including designing job plans and developing a clear career path including further progression to consultant grade posts or the ability to develop

wider skills and increase the variety and interest in the role without having to reduce the amount of clinical practice

- pay differentials - explore the option that all GPwSI and speciality doctors work under speciality doctor contracts employed by the specialist services; this would prevent pay differentials and support succession planning.

There is currently a project (led by the BAD) to review and update the current guidelines for the GPwSI in dermatology role, which will report in a year. Work is needed with partners (e.g. Royal College of GPs, Primary Care Dermatology Society) to establish:

- an accredited GPwSI in dermatology training syllabus
- guidelines on the supervision and revalidation of GPwSIs (ensuring all GPwSIs are integrated into specialist services, to enable supervision and succession planning)
- standard job descriptions/roles expected of all GPwSIs (which should also include promotion of education and feedback of diagnosis and management plans to GPs to ensure GPs are not deskilled in dermatology)
- career pathways.

Work should also be undertaken with partners (e.g. the British Dermatological Nursing Group and Royal College of Nursing) to:

- formalise training of specialist dermatology nurses.
- develop ways to make the career more attractive to new recruits –with consultant support there is a real opportunity to create attractive nursing roles and a career pathway that encourages skill and role development
- increase awareness of the speciality and option of becoming a dermatology nurse specialist through supporting rotations of trainee nurses through dermatology services.

There is also an opportunity for further development of the hospital pharmacist role in relation to supporting patients with skin conditions (for example in medicines reviews), and community pharmacists (in relation to isotretinoin monitoring and allowing them to authorise repeat prescriptions for some emollients and steroids).

Recommendations

The impact of planned changes in training proposed in the Shape of Training Report need consideration as the priority it puts on more generalist training may magnify the medical workforce gap in specialist services such as dermatology.

Services should extend the role of nurses, specialist doctors, GPs and pharmacists to help bridge the workforce gap and to improve services. In some places there is also the potential to review consultant job plans to release more clinical time.

Data, measurement and applied research

There is much variation across dermatology services and often a lack of knowledge around the basic activity and outcomes data of the service. The research into operational systems of outpatient departments highlighted the need for accessible real-time information. Suggested measures to be monitored are laid out in the box below.²⁵

Potential metrics for dermatology services

- Referral rates for benign conditions/head of population/ GP
- Ratio of malignant conditions referred/ all conditions referred/ GP
- Every false-negative diagnosis should be openly reported and shared so that every stakeholder learns and addresses the everyday process errors that underlie a service failure
- Average and range of the time between flare-ups for individual patients within a population
- Time for new referral to being seen and a clinical diagnosis made (sub measure for suspected cancers)
- Productivity of the dermatology service
- Income and activity of the service
- Number of new patients waiting for new appointments
- Number of patients in the follow-up pool
- Number of patients with a pending follow-up appointment
- Number of patients with dermatology conditions discharged/per annum/£ spend
- Average and range of the intervals for referral and representation

Recommendation

The data collected about dermatology services needs to be improved. There would also be value in encouraging the formal evaluation of innovative dermatology models, as there is limited data and analysis on outcomes of different models.

Commissioning

The majority of specialist dermatology services are delivered through outpatients (with variable links to other specialities) and so can be a target for commissioning decisions aimed at reducing outpatient referrals and increasing the dermatology service activity by primary care clinicians without adequate support from specialists.

The recent report from the BAD on commissioning²⁶ and this research have highlighted concerns about some of the approaches taken to commissioning.

- Small scale contracts with poor specifications and poor contract monitoring.
- The blanket application of new to follow-up ratios without an understanding of the nature of the services. This has unintended consequences for patients most in need of specialist care. Reducing these ratios leads to people with chronic skin conditions having to be re-referred to specialist services via their GP each time they have a flare up; allowing these patients direct access back to specialists would reduce work for GPs and improve patient experience and outcomes.
- Blanket bans on consultant-to-consultant referrals also have undesirable implications for patients with systemic diseases.
- Very aggressive attempts to reduce the price of outpatients by the use of the community tariff and the exclusion of consultant oversight of GPwSI services. Paradoxically this may increase onward referral to hospital services to such an extent that it eliminates any savings achieved through price reductions.

There is limited engagement with commissioners about dermatology services and a common experience that conversations about service design are conducted separately from financial negotiations and the two are not aligned. There is also concern that commissioners lack a basic understanding of the patients' need for dermatology services and often do not utilise evidence-based approaches to redesigning dermatology services. 'Any qualified provider' (AQP) contracts can be used in ways that fragment the service, increase total cost and reduce quality.

As part of the BAD and King's Fund review, research was commissioned into the detail of operational systems in dermatology outpatients and aspects to focus improvement on (this report is a separate attachment to the source report). The report is a useful platform to initiate service redesign discussions between providers and commissioners.

The recent BAD report on commissioning highlights some of the main challenges and issues around dermatology commissioning and case for improving commissioning.²⁷ Similarly the feedback from our research was that the quality of dermatology commissioning has frequently been poor and in some cases posed a real threat to service quality and

sustainability. Too often it appears to be short term, tactical and intent on reducing prices and activity rather than undertaking more constructive redesign. There are exceptions to this but even so it appears that imaginative ideas and changes have come from providers, and the commissioners have had the willingness and flexibility to work with them to develop the ideas.

Dermatology is rarely on the agenda as other areas such as urgent care and cancer care take precedence. Therefore dermatology services should be proactive in pulling together the local needs, issues and gaps and in designing services to address these for commissioners to review. There is also scope to develop a template service specification at a national level that provides a start point for commissioners and supports a shift to outcome-based contracts.

Local consultants should encourage a positive dialogue with local GPs about clinical issues and service design and build bridges to commissioners, for example, inviting commissioners on orientation visits to dermatology services.

Clinical interface meetings (as part of wider commissioner – provider discussions) can be valuable to allow issues to be openly discussed, but these should feed into financial and managerial decision making.

Evidence-based commissioning frameworks should be used as a tool in local negotiations. These should draw on the service metrics described earlier (the report commissioned by The King's Fund on the operational management of dermatology services and areas for improvement provides a useful start point – this is an appendix to the source report). Dialogue and better performance management data and activity data is essential to better commissioning.

There are opportunities to prioritise education and training of GPs and psychological support by including them in the tariff. It is important to note that psychological support does not have to be access to a psychologist - the approach should be that all clinicians should be able to signpost support to patients e.g. patient support groups / educational videos. There should also be flexibility within commissioning frameworks to ensure patients with chronic skin conditions can re-access specialist advice and treatment directly, rather than having to wait for a GP referral.

Finally, work needs to be undertaken by commissioners and providers to find solutions to the financial dis-incentives which are distorting commissioning decision making and provider behaviour.

- Outpatient work should be costed more accurately. This includes systems that are able to distinguish the real costs of different categories of patient.

- The attribution of overheads in hospital-based outpatients creates incentives for commissioners and providers to exploit the potential for price competition. There is a significant potential for services to be fragmented and quality adversely affected. The appearance of a cost saving may be misleading for a number of reasons, in particular the overhead costs remain in the system when an alternative model of care is commissioned from other providers.
- Disincentives for follow ups and restrictions on consultant-consultant referrals need more careful thought.
- Alternatives to payment per item of service should be considered, particularly for complex long-term skin conditions. Year of care contracts may be more appropriate. Population-based contracts with risk sharing might be a more appropriate model in areas where there is a limited number of providers.
- Commissioning conflicts of interests should be openly documented and guidance followed.

Recommendation

Our work exposed major concerns about the current quality of commissioning for dermatology services and the lack of specialist knowledge among commissioners. Commissioning should facilitate the new models of care with tariffs that reflect and encourage new patient-centred ways of working. It should not be driven by short-term tactical decisions designed to minimise the price paid rather than to improve value for patients as there is a danger of service fragmentation and of models of care that make false economies (i.e. fail to take account of whole health economy costs) or in the worst case threaten the quality of care.

Closing remarks

The above summary of the key challenges and enabling strategies is drawn from our source report, which provides the full detail of the research and also outlines second-order areas of action.

The specialty was overwhelmingly positive and thoughtful in contributing to the research through the surveys, interviews and workshops; we would particularly like to thank the individual sites that we visited and the case study sites for their time and support. We were impressed by the level of challenge at workshops and the level of the debate, particularly in changing previously held views. This ability to openly discuss and change views and overall openness of the specialty should enable dermatology to positively take forward the above strategies.

The stakeholders we spoke to welcomed the opportunity to input into the research and many saw it as an important step forward to open up the specialty to new options and opportunities to address future challenges. We hope there continues to be a forum where patient representatives, consultants, GPwSIs, GPs, pharmacists, commissioners and national organisations with an interest in dermatology could come together to discuss areas and options for improvement.

The research has also raised a number of issues that are not unique to dermatology and there may be scope in dermatology linking with other specialities to support further research and investigation, particularly around:

- GP education and training at undergraduate level and on-going continuing professional development and revalidation
- commissioning of services that are focused on a traditional outpatient model
- training, accreditation and the role of specialty doctors
- the role of narrow private sector offerings increasing the overall demand for NHS services.

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- ²⁶ Ibid BAD (2013)
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