

# Dermatology

## 1 Description of the speciality

Dermatologists manage diseases of the skin, hair and nails in adults and children. Over 2,000 skin disorders are recognised, so accurate diagnosis is fundamental to successful management. Each year 54% of the population are affected by skin disease, and 23–33% at any one time have disease that would benefit from medical care.<sup>1,2</sup> Approximately 4,000 deaths occur in the UK annually due to skin disease, most often from malignant melanoma.<sup>1</sup> Skin diseases represent 34% of disease in children,<sup>2</sup> with atopic eczema affecting 20% of infants. Dermatologists organise and deliver skin cancer services. Others subspecialise in complex medical dermatology, surgery including Mohs micrographic surgery, allergy, paediatrics, genital disorders, photodermatology and dermatopathology.

Skin cancer is the most common cancer and the second most common cancer causing death in young adults. Basal cell carcinoma (BCC) numbers equal all other malignancies combined, and increased by 133% between 1980 and 2000.<sup>3</sup> Reported melanoma incidence increased by 50% over 13 years.<sup>4</sup> Hand eczema is one of the most common reasons for disablement benefit in the UK. Inflammatory skin diseases are disabling, disfiguring and distressing and reduce quality of life. Skin disease appearance can be as important, causing disability and loss of function.<sup>1</sup>

The professional society for dermatologists is the British Association of Dermatologists (BAD) ([www.bad.org.uk](http://www.bad.org.uk)).

## 2 Organisation of the service and patterns of referral

Each year 24% of the population see their GPs for skin disease and 882,000<sup>5</sup> were referred to dermatologists in England in 2009–10 with 2.74 million<sup>5</sup> consultations. This reflects an increased prevalence of atopic eczema

and skin cancer, availability of more effective treatments, and patient demand.

Consultant dermatologists are the most efficient providers of skin care, leading interdisciplinary teams including specialty and associate specialist (SAS) doctors, GPs and nurses working in secondary and integrated intermediate care. Government initiatives have experimented with dermatology service delivery and evidence consistently shows that *care should always be delivered by individuals with the right skills, in the right setting, the first time*. Triage by an expert familiar with the full range of services ensures that patients are directed to high-quality, cost-efficient care from the outset.

### Primary care services

There are 13 million primary care consultations for skin diseases each year.<sup>1</sup> Outcomes could be enhanced by improving undergraduate dermatology teaching and learning, which averages approximately six days only. Most GP training schemes have no dermatology attachment. New Department of Health (DH) guidelines allow limited skin surgery to be undertaken under local enhanced (LES) and direct enhanced (DES) GP services, provided that correct governance arrangements are followed.

Community specialist nurses can provide support for education and self-management of chronic inflammatory skin diseases such as psoriasis, eczema and acne. They can enhance care but there is no evidence that they reduce secondary care referrals.

### Intermediate services

GPs with a special interest (GPwSIs) in dermatology can provide effective intermediate care for individuals with chronic mild/moderate inflammatory diseases, skin infections, sun damage and certain skin cancers *as part of* an integrated consultant dermatologist-led team. There is no good evidence that these services reduce secondary care referrals or save money.<sup>7</sup> There are detailed DH safety, governance and training guidelines

for GPwSIs, which some primary care trusts (PCTs) ignore.

### Secondary care services

Secondary care dermatology services receive 882,000 referrals each year in England (approximately 16 per 1,000 population).<sup>6</sup> Up to 50% of referrals relate to skin cancer. Specialist services include:

- skin cancer clinics – dermatologists screen over 90% of skin cancer referrals and treat approximately 75% of them; the National Institute for Health and Clinical Excellence (NICE) recommends that high-risk BCCs (the majority of cases) are treated in secondary care
- facilities for dermatological surgery, cancer multidisciplinary teams (MDTs) and data collection compliant with NICE guidance
- medical dermatology for complex problems, often in MDT clinics with other specialties such as rheumatology
- inpatient care of sick patients with severe skin diseases or skin failure, sometimes requiring intensive care
- phototherapy, iontophoresis, wound care and other day treatments
- day-case units for infusion of disease-modifying drugs
- paediatric dermatology services including laser surgery
- investigation of cutaneous allergy and occupational skin disease by patch and prick testing
- investigation of photodermatoses, which affect 18% of the population reducing quality of life, psychological welfare and employability
- management of skin problems in hospital patients with other illnesses thereby reducing length of stay (LOS)
- skin cancer screening for organ transplant recipients
- genital skin diseases
- management of genodermatoses
- cutaneous infections, tropical diseases and HIV skin diseases
- cellulitis day-case services producing substantial NHS savings
- teaching, training and assessment of medical students, GPs, trainee dermatologists and other healthcare professionals
- collection and analysis of clinical data, clinical audit and compliance with clinical governance requirements

- clinical research including therapeutic trials
- contributions to the wider NHS including NICE, Care Quality Commission, the RCP and BAD (producing guidelines, patient information and outcome measures).

Hospital-based services require at least one whole-time equivalent consultant dermatologist per 62,500 population (see section 8). SAS doctors form an integral part of the hospital team. Departments require the support of pharmacists and trained specialist dermatology nurses who:

- treat patients in day-care units and on wards, provide and supervise phototherapy, assist with patch testing under consultant supervision, perform surgical procedures and care for wounds and ulcers
- provide patient information, demonstrate and apply treatments, dress wounds, remove sutures and review follow-ups
- assist in operating theatres and advise patients undergoing surgery
- advise and train professional colleagues caring for patients with skin diseases in the hospital/ community
- with paediatric training, run hospital/outreach services for children with chronic skin disease. Establish and run community clinics
- run monitoring clinics for isotretinoin and biological/systemic treatments for inflammatory skin diseases.

### Tertiary care services

The UK has many national and international experts in dermatology who provide services for complex cases.

As of January 2011, national commissioned group services in England exist for: xeroderma pigmentosum, epidermolysis bullosa, Ehlers-Danlos syndrome, neurofibromatosis types 1 and 2, Fabry disease and cryopyrin diseases.

### Community care

Community pharmacists can reinforce self-care/self-help messages at the point of dispensing for patients. People spent £413 million (18% of over-the-counter (OTC) sales) on skin treatments in the UK in 2007.<sup>1</sup>

Red Cross Cosmetic Camouflage services may be an integral part of care.

### Complementary services

Psychological support is often required but rarely available.

Alternative therapies lack evidence of efficacy and safety and some (eg eastern herbal treatments) may contain potent corticosteroids or liver toxins.

## 3 Working with patients: patient-centred care

### Ensuring that the patient is at the centre of care

#### Patient involvement and choice

Involving patients in choice and decision making about their care has been improved by increasing consultation times with doctors and nurses and by providing quality information such as BAD patient information leaflets (PILS) (available at [www.bad.org.uk](http://www.bad.org.uk)).

Patient choice would be enhanced were information for patients available, at the point of choice, about the qualifications, experience and accreditation of doctors providing services.

#### Patient support groups and access to information

Fifty-five patient support groups (PSGs) are recognised by the BAD, which provides links to their websites from [www.bad.org.uk](http://www.bad.org.uk), where 120 PILS on over 100 conditions are available.

#### Education and promoting self-care for acute and chronic skin diseases

Information provided by PSGs is invaluable. The BAD provided £100,000 support to PSGs for these resources in 2008–10.

#### Role of the expert patient

The Dermatology Councils for England, Scotland and Wales represent multiple stakeholders including PSGs and the Skin Care Campaign (SCC). Patient and public involvement groups (PPIs) are active in many dermatology departments.

## 4 Interspecialty and interdisciplinary liaison

Dermatology care is carried out most efficiently in the UK using a hospital-based team led by a consultant dermatologist, with SAS doctors, GPs and nurses in secondary and integrated intermediate care.

Multidisciplinary teams in skin cancer clinics involve dermatologists, surgeons, histopathologists, oncologists, radiotherapists, nurses and psychologists.

Combined clinics between dermatologists and hospital specialists exist for complex problems, eg involving rheumatology, plastic surgery, HIV, genital/oral diseases, psychiatry, paediatrics, genetics, stomas, eyes, vascular surgery and allergy.

## 5 Delivering a high-quality dermatology service

### What is a high-quality service?

A dermatology service should provide patient-centred care focusing on outcomes that meet national standards. To achieve this, all staff must be correctly trained and accredited and the local service structure should provide facilities that enable safe and effective investigation and treatment.

### Staffing

Consultant dermatologists should be on the specialist register of the General Medical Council (GMC). They should not work alone and must have appropriate support staff including specialist dermatology nurses and trained secretarial staff.

### Local facilities needed for dermatology patients<sup>8</sup>

The following local facilities are needed:

- dedicated outpatient units with rooms for patient education, breaking bad news and counselling
- areas for contact allergy testing with storage areas for allergens meeting national published standards
- surgical facilities meeting national standards for space, cleanliness and equipment, with storage for liquid nitrogen
- laser-safe areas where required
- facilities for Mohs micrographic surgery where required, meeting national standards
- day-care centres staffed by dedicated dermatology nurses
- phototherapy units for adults and children staffed by trained dermatology nurses who can also provide skin care (unlike physiotherapists), meeting national standards for equipment and safety. Medical physicists should monitor ultraviolet (UV) output. A named consultant dermatologist should be responsible for the service

- *hospital beds* staffed by trained specialist dermatology nurses with 24-hour medical care. Dermatology patients require a specialised dermatology nurse to apply treatments and provide education, with adequate bathing and treatment rooms. Inpatients should be geographically close to outpatient units for maximal efficiency
- laboratory support including chemical pathology, haematology, radiology, microbiology, mycology, histopathology and immunopathology
- information technology (IT) hardware and software that is robust, modern, reliable, fast, in the right place and immediately available
- medical photography services (eg for mole mapping and monitoring)
- comprehensive pharmacy services
- appropriate accommodation for paediatric dermatology clinics and inpatient care.

### Maintaining and improving quality of care

Dermatologists lead the team delivering clinical services, driving service developments/innovations to improve patient outcomes.

### Education and training

Education and training of medical students, specialty registrars (StRs), GPs and nurses improves care for patients with skin disease. 20% of GP consultations relate to skin disease but only 20% of GP training schemes include dermatology. Medical students, on average, receive approximately six days only of dermatology education. Consultants conduct assessments (such as mini clinical evaluation exercise (mini-CEX), direct observation of procedural skills (DOPs)) for trainee dermatologists, SAS and foundation year 1 and 2 (FY1 and FY2) doctors and medical students.

### Mentoring and appraisal of medical and other professional staff

The UK leads the world in development of specialist dermatology nurses.

### Continuing professional development

Dermatologists spend more than 50 hours per year on continuing professional development (CPD).

### Clinical governance

Clinical governance meetings discussing outcomes and reviewing departmental data, audit, complaints, new guidelines etc should be included in the work

programme. Protected time should be allowed for local, regional and national audit.

### Research – clinical studies and basic science

Clinical and basic science research is essential to drive innovation and improve outcomes. The UK Dermatology Clinical Trials Network has over 600 members. Academic dermatologists contribute to NHS work by setting up tertiary services, and leading UK dermatology education and research.

### Local management roles

Dermatologists have multiple roles, leading clinical areas such as paediatric dermatology or patch testing and being responsible for registrar training or undergraduate teaching, audit, and clinical governance. They also may be MDT chair or clinical service lead.

### Regional and national work

Medical representation is essential on local, regional and national committees and for national, professional or governmental bodies such as the DH, GMC, specialist advisory committee (SAC), the RCP and the British Medical Association (BMA). The BAD has elected officers and committees that contribute substantially to national policy. Appropriate time should be allocated in the work programme for these important roles if the NHS is to function efficiently.

The *British Journal of Dermatology* and *Clinical and Experimental Dermatology*, essential for service development and CPD, are run by the BAD, with editorial work and paper reviews undertaken by UK dermatologists.

### National guidelines

National guidelines are produced by dermatologists and listed on [www.bad.org.uk](http://www.bad.org.uk), badged by NHS Evidence. Dermatologists contribute to NICE appraisals and guidelines and NHS 'Clinical knowledge summaries'.

### Audits, quality tools and frameworks

All dermatologists participate in local, regional and national audit programmes and many help develop quality tools and service frameworks.

## 6 Clinical work of consultants in dermatology

### Inpatient work

In many hospitals, dermatology care is moving from a fixed ward base to multidisciplinary involvement with

dermatology patients on multiple wards. This must be reflected in job plans, with inpatients also receiving expert, dedicated dermatological nursing care.

- *Ward rounds*, leading and training a team including registrars, specialist nurses and students, usually occur for dermatology inpatients twice weekly.
- *Referral work*. Urgent requests for dermatological opinions on acute admissions require review on ward rounds. These frequently reduce LOS.

### Outpatient and day-case work

Outpatient and day-case work is the core work of most dermatologists. The nature of these clinics and specialist procedures varies considerably.

- *General dermatology clinics*: the ratio of new to follow-up patients and time allocated varies depending on the type/complexity of the cases seen. On average 12–16 patients may be seen in a clinic. In clinics teaching undergraduates, training registrars, or supervising doctors and nurses, numbers must be reduced accordingly.
- *Skin cancer/‘see-and-treat’ clinics*: various models are used. In screening clinics dermatologists see larger numbers of patients. See-and-treat clinics provide surgery on the first visit, reducing the numbers seen.
- *Specialised clinics within dermatology* include paediatrics, skin allergy, photodermatology and genital clinics.
- *Complex case clinics*: regions and large departments hold multidisciplinary clinics weekly or monthly for complex cases.
- *Surgery lists* may include biopsies (often done by nurses), day-case skin surgery lists including Mohs’ micrographic surgery and laser lists (requiring a laser-safe area and general anaesthetic facilities for children). Skin surgery will usually take 20 minutes for a skin biopsy, 30 minutes for a simple excision and 60–90 minutes for more complex flaps and graft repairs. Micrographic surgery can take 90 minutes to several hours. These times do not include ‘turnaround’ time between cases, which depends on trained nursing support and efficiency.

### Specialist on call

Dermatology trainees require training in acute ‘on-call’ dermatology. Patients with severe skin disease or skin failure should have access to expert dermatology advice.

### Other specialist activities

Other specialist activities include weekly 1–2 hour MDT cancer meetings reviewing cancer cases according to the NICE guidelines, cancer networks, paediatric clinical case conferences and appropriate domiciliary visits.

### Clinically related administration

Clinically related administration includes screening and prioritising referral letters, reviewing and acting upon laboratory results and communicating with and about patients with colleagues in writing, by telephone or email.

Teledermatology may be a useful triage tool for geographically remote areas *only* as part of an integrated consultant-led team subject to full clinical governance; there is no evidence that it can safely reduce referrals outside this setting.<sup>9</sup> The time ratio between direct patient contact and clinical administration for dermatologists is 1:0.4.

## 7 Opportunities for integrated care

Consultant dermatologists are the most efficient providers of skin care. Due to consultant shortages in the UK, dermatology services work most efficiently as interdisciplinary, consultant dermatologist-led teams including SAS doctors, GPs and nurses (in secondary and intermediate care). GPwSIs must comply with DH rules on training and governance.<sup>10</sup>

## 8 Workforce requirement for the speciality

Based on government statistics for new patient referrals in 2009–10, a population of 250,000 generates 4,000 new patients.<sup>5</sup> With a ratio of 1 new to 1.6 follow-up patients achievable for general dermatology clinics (not counting patients attending for patch testing, phototherapy, surgery and other treatments),<sup>11</sup> 6,400 follow-up patients would give 10,400 patients per year in total.

The recorded new to follow-up ratio in 2009–10 for dermatology in England was 1:2.1.<sup>5</sup> Commissioners using current recording methods should expect these figures.

Activities related to direct clinical care generate approximately 0.4 PA (programmed activity) for each

Table 1 Example of job plan (England)		
Activity	Workload	Programmed activities (PAs)
<b>Direct clinical care</b>		
Ward rounds, day-care supervision, nurse clinic supervision, ward referrals in hospitals with contractual agreements	Referrals from hospital colleagues; inpatient bed numbers vary	0.5–1.5
General outpatient clinics	10 for new clinic (20 min/consultation) or 16 follow-ups (15 min) or combination	3–4
Skin surgery	7 cases of average complexity	0–1
Skin cancer MDT	Weekly or alternate weeks	0.5–1
Dermatopathology	Variable	0–0.5
On-call duties	Variable	0–1
Administration and management	'Choose and Book', direct patient care, review of results, communication with other healthcare professionals (0.4 per clinic or surgical list)	2–2.5
Specialist clinics	eg paediatric, patch testing, phototherapy, psoriasis, skin cancer	0–2
Travel	Variable	0–1
<b>Total number of direct clinical care PAs</b>		<b>7.5 on average</b>
<b>Supporting professional activities (SPAs)</b>		
Work to maintain and improve the quality of healthcare	Revalidation undergraduate education, nurse, GP and hospital doctor training and supervision, appraisal educational supervisor or programme director for StRs; departmental management and service development audit and clinical governance CPD and revalidation, research etc	2.5 on average (1.5 minimum)
<b>Other NHS hospital responsibilities</b>	Medical director/clinical director/lead consultant in specialty/clinical tutor	Local agreement with trust
<b>External duties</b>	Work for deaneries/royal colleges/specialist societies/DH or other government bodies	Local agreement with trust

clinic (Table 1). A 10-PA consultant should work 5 PAs in the clinic or operating theatre, with 2 PAs of patient administration and 0.5 PA for MDT.

A consultant with no travel to other centres, no inpatients, ward rounds or on call, no specialist clinics, no clinic teaching and no junior supervisory role should undertake two new, two follow-up (or equivalent mixed clinics) and one skin surgery clinic per 10-PA week. With 12 new patients (20 minutes per consultation), 16 follow-up cases (15 minutes per consultation) or up to

seven surgical cases per clinic, 24 new patients, 32 follow-up patients and seven surgical procedures are seen per week. These are maximum numbers; actual numbers and new:follow-up ratios vary according to case type/complexity, with a ratio of 1:1.6 reported for psoriasis.<sup>11</sup> People attending phototherapy, day care, treatment visits, surgery or investigations should not count or be coded as follow-up cases. Intermediate services take simple cases, resulting in more complex cases in secondary care adversely affecting new to follow-up ratios.

In an average 42-week year, a consultant will see 1,008 new and 1,344 follow-up patients and perform 280 operations. A population of 250,000, therefore, requires 4 whole-time equivalents (WTE) consultants (ie one consultant per 62,500 based on DH 2009–10 figures). This does not allow for specialist clinics, teaching students, supervising or training any grade of staff, ward referrals, inpatient care, on-call work, travel or MDTs.

There were 600 (527 WTE) consultant dermatologists, 191 WTE specialty registrars (equivalent to 40 WTE consultants) and 97.5 WTE SAS doctors (equivalent to 80 WTE consultants) in the 2010 UK BAD workforce survey, totalling approximately 647 WTE consultants. For the population of 61,800,000<sup>6</sup> *the UK workforce requirement for a consultant-led service is a minimum of 989 (WTE) dermatologists, indicating a shortfall of over 250 WTE dermatology consultants.*

Reductions in clinic numbers are required for consultants supervising and training other doctors and medical students. The impact varies (typically one patient slot/individual) but may mean up to a 30% reduction in patient numbers.

## 9 Consultant work programme/specimen job plan

The work programme/specimen job plan discussed here is for a consultant dermatologist working in a district general hospital. The standard contract for a full-time NHS consultant is 10 PAs per week, typically divided into 7.5 PAs for direct patient care and 2.5 PAs for supporting activities (SPAs) (7:3 ratio in Wales).

The balance between formal clinics, surgery, specialist clinics, ward work and supervisory activity will vary. Direct patient contact time must be accompanied by appropriate clinical administration time (1 clinical PA requires 0.4 PA administration time).

Numbers in clinics should be adjusted to ensure completion within 4 hours (3.75 in Wales), including clinic teaching and immediate clinical administration.

The BMA and the RCP give 2.5 SPAs (3 in Wales) as the 'typical' requirement, with 1.5 typically needed for the purposes of revalidation. Additional time is required for training, the lead dean stating that StR supervision requires 0.5 SPA and FY1/FY2 supervision 0.25 SPA weekly. New jobs should detail the proposed SPAs and

existing consultants may need to justify SPAs at the job plan review.

Work for national bodies should be acknowledged and programmed and may require a negotiated reduction in the clinical elements of the job plan. On-call commitments will vary with local policies and staffing levels. Those working part-time or in academic posts must revalidate. Adequate SPA time must, therefore, be available while maintaining a sensible balance in a part-time contract. Hospital consultants involved in teaching and research need additional time for these activities, which will reduce the clinical elements of the job plan.

## 10 Key points for commissioners of dermatology services

- 1 Dermatology care should always be delivered by individuals with the right skills, in the right setting, the first time.
- 2 Patients offered choice should receive full information about the qualifications, accreditation and range of services offered by providers.
- 3 Dermatologists manage diseases of the skin, hair and nails in adults and children. As over 2,000 conditions are recognised, accurate diagnosis is fundamental to successful management.
- 4 Each year 54% of the population are affected by skin disease, and 23–33% at any one time have disease that would benefit from medical care.<sup>1,2</sup>
- 5 Skin cancer is the most common cancer and the second most common cause of death in young adults. Basal cell carcinoma numbers equal all other malignancies combined and increased by 133% between 1980 and 2000.<sup>3</sup> Reported melanoma incidence increased by 50% over 13 years.<sup>4</sup>
- 6 Consultant dermatologists see over 1,000 new patients per year and provide expert management, leading and training an MDT of dermatology nurses and GPs working across traditional healthcare boundaries. Efficiency of consultants is maximised by support and teamwork with specialist nurses and secretaries, optimising communication with the public and other practitioners.
- 7 There is no evidence that intermediate care in dermatology saves money or reduces referrals to secondary care, although such services may be popular with patients.<sup>7,11–13</sup> There are DH documents on GPwSI training and governance that

should be followed for patient safety.<sup>1</sup> DH training and governance guidance (2010–11) for GPwSI surgery for low-risk skin cancers should be followed.

- 8 Teledermatology may be a useful triage tool for geographically remote areas but only as part of an integrated consultant-led team subject to full clinical governance; there is no evidence that it can safely reduce referrals outside this setting.<sup>9</sup>
- 9 Dermatology consultants should not work in isolation but with consultant colleagues with a range of subspecialist skills.
- 10 The British Association of Dermatologists clinical services unit ([www.bad.org.uk](http://www.bad.org.uk)) is able to advise commissioners about dermatology services and help resolve issues.

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