

Undergraduate Dermatology Curriculum

July 2016

British Association of Dermatologists



Introduction

This document is the 2016 revised dermatology undergraduate curriculum (UK) from the British Association of Dermatologists. It is timely to provide an update of the previous 2009 curriculum ¹ following the recent publication by the General Medical Council (GMC) of *Outcomes for Graduates* ². It seeks to support UK medical schools with guidance on the minimum competencies required of a graduate for the safe care of patients with skin disease. Learning outcomes in this curriculum are mapped to *Outcomes for Graduates*. In reviewing the curriculum the authors sought feedback from key stakeholder groups including medical students, junior doctors, general practitioners and undergraduate teaching leads in dermatology.

This document does not specify educational methodologies, teaching delivery or assessment methods, recognising that individual schools have their own requirements. However, it aims to support consistency in undergraduate dermatology education in the UK: a recent national survey of dermatology delivery in UK medical schools highlighted striking variation, and in some cases absences, in curriculum content and summative assessment ³. Graduates must have firm grounding in not only essential knowledge and clinical skills, but also the ability to apply critical thinking and reasoning processes (Outcomes 8c,g and 14f) ² for the safe care of patients. To achieve this, deliberate practice should underpin learning ⁴. It follows that classroom activities alone cannot replace direct experiential learning facilitated by teachers with sufficient expertise in dermatology.

Despite the prevalence of skin complaints across primary and secondary care (20% general practice⁵, 3% of consultations in the emergency department ⁶ and 1.4% of hospital admissions ⁷), there is a striking lack of postgraduate opportunities to learn clinical dermatology. Adequate undergraduate attainment underpinned by clinical experience has the potential to ensure that every future medical practitioner has sufficient grounding needed to diagnosis and manage the most prevalent, serious and life-threatening skin problems. The outcomes defined here provide guidance on the minimum requirements that medical schools should seek to cover. The challenge of delivering these in the context of competing priorities within the wider curriculum is acknowledged and it can be noted that some outcomes may be integrated into other areas of the course, such as therapeutics, general practice, infection and paediatrics.

Domain	Outcomes for Graduates Category	Intended Learning Outcomes To be able to...
Foundations of Science	8a	Describe the structure and functions of normal skin
	8b	Describe the principles of wound healing
	8b	Relate knowledge of normal skin structure and function to alterations that occur in the context of skin disease
	8b-f	Apply knowledge of pathophysiology when discussing the processes of diagnosis, investigation and treatment of skin disease
Essential Clinical Skills	13a	Take and present a coherent dermatological history from patients presenting with a lesion or rash
	13b, 15a,b	Interact sensitively with people with skin diseases, eliciting their questions, concerns and understanding of their condition and treatment options
	13c	Examine and describe physical signs in skin, hair, nails and mucous membranes systematically, using appropriate terminology
	13c	Accurately record the findings of a dermatological assessment
	14e	Synthesise a full assessment of a patient's problems and define the likely diagnosis or diagnoses, allowing for differences in presentation between adults and children
	9c,d	Assess the psychosocial impact of skin disease on patients and carers, and gauge when to refer on for additional support
Investigations and Procedures	8d	Explain the indications for and practicalities of punch biopsy, curettage and simple excision
	18a	Demonstrate how to obtain samples for bacterial, viral and fungal testing
	8c	Justify the selection of appropriate investigations for common skin conditions
Common Inflammatory Skin Diseases		
Eczematous eruptions	8b, 11f	Describe the epidemiology, pathophysiology and common presentations of eczematous eruptions
	14b	Develop the ability to make and test differential diagnoses, by comparing and contrasting the features of the various types of eczema

	14a-g	Apply knowledge of the above to assess a patient, formulate a differential diagnosis, instigate investigation, and provide both initial and continuing care
Psoriasis	8b, 11f,	Describe the epidemiology, pathophysiology and common presentations of psoriasis
	14a-g	Apply knowledge of the above to assess a patient, formulate a differential diagnosis, and provide both initial and continuing care
	14a-g	Assess a patient for co-existing morbidities including psoriatic arthritis, cardiovascular risk and metabolic syndrome
Acneiform eruptions	8b, 11f	Describe the epidemiology, pathophysiology and common presentations of acneiform eruptions
	14b	Develop the ability to make and test differential diagnoses, by comparing and contrasting the features of acne vulgaris and rosacea
	14a-g	Apply knowledge of the above to assess a patient, formulate a differential diagnosis, and provide both initial and continuing care
Benign and Malignant Lesions		
Benign skin lesions	14b, 14e	Compare and contrast the epidemiology, clinical features and management of the following benign lesions: Viral warts Epidermoid and pilar cysts Seborrhoeic keratoses Dermatofibroma Lipoma Common vascular lesions
	14b	Diagnose these benign lesions and, where relevant, recognise potentially more serious differential diagnoses
Benign and malignant melanocytic lesions	8b, 11f	Describe the epidemiology and pathophysiology of benign, premalignant and malignant melanocytic lesions
	14b, 14e	Develop the ability to make and test differential diagnoses, by comparing and contrasting the features of benign and suspicious melanocytic lesions
	8b	Explain the determinants of prognosis for melanoma recognising its life-threatening nature
	14a-g	Apply the above knowledge to assess a patient presenting with a pigmented lesion, using a holistic approach, including full skin examination

	14g	Recognise that excision comprises the investigation and treatment of choice and that sampling is not appropriate
Non-melanoma skin cancers (NMSC)	8b, 11f	Describe the epidemiology and pathophysiology of premalignant lesions: actinic keratosis and Bowen's disease
	8b, 11f	Describe the epidemiology and pathophysiology of basal cell carcinoma and squamous cell carcinoma
	14b	Develop the ability to make and test differential diagnoses, by comparing and contrasting the subtypes of basal cell carcinoma
	8b, 11f	Apply knowledge of pathophysiology to explain the spectrum of change from actinic keratosis and Bowen's disease through to squamous cell carcinoma
	14b, 14e	Develop the ability to make and test differential diagnoses, by comparing and contrasting the differences between basal cell carcinoma and squamous cell carcinoma
	14a-g	Apply the above knowledge to assess a patient, formulate a differential diagnosis, instigate investigation and justify treatment modalities for non-melanoma skin cancers
	8b	Recognise the possibility of cutaneous metastasis from skin and internal malignancies
	14b	Recognise that lymphoma can present in the skin, and may enter into the differential diagnosis of both lesions and inflammatory eruptions
All suspicious lesions	11i, 14g	Counsel patients on appropriate sun protection behaviours with the correct use of sunscreens (protecting for both UVA and UVB)
	22a	Explain the two-week-wait pathway and the role of the skin cancer multidisciplinary team to patients and their carers
Skin Infections and Infestations	11f	Apply knowledge of the epidemiology and microbiology of organisms that commonly cause skin infections
	14a-d,g	Complete a clinical assessment, order the appropriate investigation(s) and justify the correct management for the following common skin infections: <ul style="list-style-type: none"> • Bacterial: impetigo, folliculitis, cellulitis, erysipelas, syphilis • Viral: Herpes simplex, chicken pox, shingles, viral warts, molluscum contagiosum • Fungal: dermatophytosis, candidiasis, pityriasis versicolor • Parasitic: scabies and lice infestations

Skin and Systemic Disease	14a,c, d	Assess a patient presenting with pruritus, recognising potential systemic causes and ordering the appropriate investigations
	14a,b	Describe cutaneous manifestations of underlying systemic disease: <ul style="list-style-type: none"> • Paraneoplastic phenomena • Autoimmune conditions e.g. vitiligo, alopecia areata • Connective tissue disease (lupus, vasculitis) • Vascular disease (venous and arterial ulcers, lymphoedema)
Acute and Emergency Dermatology	14a-e 16a-e	Know the principles of diagnosing and managing patients with the following presentations, including referral to appropriate specialties: <ul style="list-style-type: none"> • Acute (and chronic) urticaria • Drug reactions including Stevens-Johnson syndrome / toxic epidermal necrolysis spectrum • Extensive blistering eruptions involving the skin +/- mucous membranes • Erythroderma • Eczema with secondary infection (including eczema herpeticum) • Generalised pustular psoriasis • Necrotising fasciitis • Staphylococcal scalded skin syndrome
Medicines Safety and Therapeutics	14f,g	Formulate therapeutic strategies by applying critical thinking processes (employing pharmacological knowledge, clinical assessment and interpretation of investigations)
	12a,c	Justify the choice of treatment using evidence-based practice based on appraisal of local/national/international guidelines as appropriate
	12a	Apply a stepwise approach to treating skin problems ensuring that exacerbating factors have been addressed
	8e,f 17c-g	Prescribe safely topical treatments accounting for (where relevant) potency, formulation, body site, adverse effects, interactions, contraindications and patient preference including: <ul style="list-style-type: none"> • Emollients and soap substitutes • Corticosteroids • Antibiotics • Antifungals • Retinoids

		<ul style="list-style-type: none"> • Therapies for actinic keratosis and Bowen’s disease • Therapies for parasitic infestations
	8e,f 17c-g	Prescribe safely oral treatments accounting for indication, adverse effects, interactions, contraindications and patient preference including : <ul style="list-style-type: none"> • Antibiotics • Antifungals • Corticosteroids
	8e,f 17e-g	Recognise the indications for and possible adverse effects of additional systemic therapies in the treatment of skin disease, such as retinoids, immunosuppressants and biological drugs
	17e	Counsel patients and/or carers on benefits, potential adverse effects and appropriate application of topical treatments to maximise adherence to treatment

Authors

Cohen SN, Ogilvie S, Sharma M, Honan A, Ascott A, Singh M

Acknowledgements

Dr Ruth Murphy, Dr Tamara Griffiths and Ms Stacey Kelly. British Association of Dermatologists
Dr Azaharry Yaakub and Dr Jon Goulding. National Survey of Undergraduate Dermatology Content (2015)

References

1. Burge S. *Dermatology in the Undergraduate Curriculum*. British Association of Dermatologists, 2009
2. *Outcomes for Graduates*. General Medical Council, 2016; available at http://www.gmc-uk.org/education/undergraduate/undergrad_outcomes.asp. Last accessed 29 June 2016
3. Yaakub A, Cohen SN, Singh M, Goulding JMR. Dermatological content of UK undergraduate curricula: where are we now? [abstr] *Br J Dermatol* 2015; **173**, S1:194–197
4. Causer J, Barach P, Williams AM. Expertise in medicine: using the expert performance approach to improve simulation training. *Med Educ*. 2014; **48(2)**:115-23
5. Research and Surveillance Centre. Royal College of General Practitioners *Weekly Returns Service Annual Report*, 2011.
6. Lai-Kwon JE, Weiland TJ, Jelinek GA, Chong AH. Which patients with dermatological conditions are admitted via the emergency department? *Australas J Dermatol* 2014; **55(4)**:255-9.
7. Schofield JK, Grindlay D and Williams HC. *Skin conditions in the UK: a Health Care Needs Assessment*. Centre for Evidence Based Dermatology 2009.
8. Royal College of General Practitioners (2016). *GP Curriculum*. Last accessed online 22 April 2016 at www.rcgp.org.uk

