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Concise guidance to good practice

A series of evidence-based
guidelines for clinical management

Number 13:

Diagnosis, management and prevention
of occupational contact dermatitis

National guidelines

Setting higher standards



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The Royal College of Physicians

The Royal College of Physicians is a registered charity that aims to ensure high-quality care for patients by promoting the highest standards of medical practice. It provides and sets standards in clinical practice, education and training, conducts assessments and examinations, quality assures external audit programmes, supports doctors in their practice of medicine, and advises the government, public and the profession on healthcare issues.

Health and Work Development Unit (previously Occupational Health Clinical Effectiveness Unit)

The Clinical Standards Department's Health and Work Development Unit (HWDU) at the Royal College of Physicians aims to improve the health of the workforce through the delivery of national quality improvement projects. The HWDU measures and raises standards and reduces variability of occupational healthcare through the development of evidence-based guidelines and conducting national clinical and organisational audits. The HWDU also works to improve the implementation of NICE public health guidance for the workforce.

NHS Plus

NHS Plus serves to increase the quality and delivery of health and work services, and supports the broader health, work and well-being strategy through: helping to develop the NHS as a model employer, delivering services to other public sector bodies and smaller businesses, and supporting the development of quality occupational health practices. Over the past four years, NHS Plus has commissioned the Health & Work Development Unit (previously the OHCEU) to produce a range of evidence-based guidelines and conduct three rounds of national audit.

British Occupational Health Research Foundation (BOHRF)

The British Occupational Health Research Foundation's mission is bringing employees and researchers together to produce research that contributes to good employee health and performance at work.

Faculty of Occupational Medicine

Our aim is for healthy working lives through:

- elimination of preventable injury and illness caused or aggravated by work
- maximising people's opportunities to benefit from healthy and rewarding work while not putting themselves or others at unreasonable risk
- access for everyone to advice from a competent occupational physician as part of comprehensive occupational health and safety services.

British Association of Dermatologists

The British Association of Dermatologists is the professional organisation for consultant, trainee and staff and associate specialist dermatologists in the UK and Ireland. Its main objective is to promote the knowledge and teaching of dermatology. The association stimulates and promotes appropriate medical and scientific research and publishes the results of this research for the public. A main aim of the association is to relieve the distress of skin disease sufferers by promoting improvements in dermatological care, and to advise government, political parties and professional bodies on all matters relating to dermatology for the benefit of patients. The association also works with many other organisations to achieve its aims of supporting patients and improving standards. These include patient support groups, special interest groups, international dermatology groups and the medical royal colleges.

Concise Guidance to Good Practice series

The concise guidelines in this series are intended to inform aspects of physicians' clinical practice which may be outside their own specialist area. In many instances, the guidance will also be useful for other clinicians, including GPs, and other healthcare professionals.

The guidelines are designed to allow clinicians to make rapid, informed decisions based, wherever possible, on synthesis of the best available evidence and expert consensus gathered from practising clinicians and service users. A key feature of the series is to provide both recommendations for best practice, and, where possible, practical tools with which to implement it.

Series editors

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Occupation is an important risk factor for contact dermatitis that presents in adulthood. Occupational contact dermatitis often has significant adverse effects on quality of life and the long-term prognosis is poor unless workplace exposures are addressed. Patients often present with the condition to GPs, physicians or dermatologists who will be responsible for facilitating management of the workplace issues in the event that an occupational health service is not accessible.

This concise guidance summarises three sets of guidance from the Occupational Health Clinical Effectiveness Unit, the British Occupational Health Research Foundation and the British Association of Dermatologists respectively. It is aimed at physicians in primary and secondary care, covering the clinical aspects of case management but also drawing attention to the important actions they should take to address the workplace issues, either in liaison with an occupational health provider or in the absence of occupational health input.

Introduction

Contact dermatitis (CD) is common in the general population, with a point prevalence of hand dermatitis of 9.7% and incidence of 5.5–8.5/1,000 person years.^{1,2} Among patients of working age, occupation can be an important risk factor; skin disease is the third most common occupational disease, with contact dermatitis (CD) accounting for 70–90% of all occupational skin disease.

Although not life-threatening, dermatitis can have a serious adverse impact on quality of life, daily function and relationships. It has important social implications for patients and their families, including a potentially serious threat to employment. The prognosis for occupational CD is better when the exposure of affected individuals to causative agents at work is reduced. Therefore, good medical management of this condition comprises both clinical treatment and careful attention to risk identification and control in the workplace.

Where an individual has occupational health (OH) provision through their employer, the occupational aspects of prevention and case management will be coordinated by OH professionals. However, OH services are not provided under the NHS, and only a third of employees on the UK have access to them through their employers. Therefore, for most patients, GPs, physicians and dermatologists will be responsible for ensuring that the occupational risks are identified and managed alongside the clinical treatment, in the absence of specialised OH advice.

Aims of the guideline

This guideline aims to provide physicians who work in primary and secondary medical care with a standardised approach to managing CD in patients of working age. The document summarises three key sets of recently published or updated guidance (the source guidelines) from the Occupational Health Clinical Effectiveness Unit (OHCEU),³ the British Occupational Health Research Foundation (BOHRF),⁴ and the British Association of Dermatologists (BAD).⁵ It covers both the clinical and the occupational aspects of case management, with a focus on the following areas:

- diagnosis and investigation of CD
- clinical management of cases of occupational CD
- management of the occupational aspects, including facilitating exposure control, adjustments at work, and primary and secondary prevention.

The source guidelines have been produced by various multidisciplinary guideline development groups (GDGs). All have taken an evidence-based approach, using standardised scoring systems for the assessment of quality and grading of recommendations. The occupational guidelines (from OHCEU and BOHRF) have used the Scottish Intercollegiate Guidelines Network (SIGN) methodology, either alone or in combination with the Royal College of General Practitioners (RCGP) three star system. Importantly, the GDGs included patient representation. Please refer to the full texts of the source guidelines for a complete description of methodology and the membership of the GDGs. The recommendations in this concise guideline (Box 1) have been graded using SIGN categories.

Box 1a Recommendations for all patients

Recommendation	Grade
When an adult of working age presents with clinical features of contact dermatitis (CD), the physician should:	
1 Take a full occupational history, (see Box 2) asking the patient about: <ul style="list-style-type: none">• their job• the materials with which they work• the location of the rash• any temporal relationship with work.	C
2 Arrange for diagnosis of occupational CD to be confirmed objectively by patch tests and/or prick tests in a specialist contact dermatitis clinic.	B
3 Treat established symptoms with topical steroids, soap substitutes and emollients.	C
4 Advise patients of their increased risk from exposure to irritants and sensitising agents at work, and counsel them to: <ul style="list-style-type: none">• avoid exposure or protect their skin with suitable gloves• use soap substitutes and emollients during and after work.	C
5 Consider advising temporary adjustments to duties (or brief absence from work) to facilitate recovery if a patient's CD is severe and deteriorates because of work.	GPP
6 Refer patients with steroid-resistant CD to a dermatologist for consideration of second-line treatments.	C
7 Refer patients with occupational CD to a physician who has expertise in occupational skin disease for advice about workplace adjustments and liaison with their employer.	GPP

GPP = good practice point

Box 1b Recommendations if there is no access to occupational health (OH) advice

Recommendation	Grade
The physician should contact the patient's employer to:	
<ul style="list-style-type: none">• alert them to the diagnosis of work-related CD• remind them of their responsibility to notify the Health and Safety Executive, if a new case• give advice about programmes to remove or reduce exposure to the causative agents(s).	GPP

Box 1b Recommendations if there is no access to occupational health (OH) advice *continued*

Advice should include the following:

- | | | |
|---|--|------------|
| 1 | Appropriate gloves and cotton liners should be provided where the risk of occupational CD cannot be eliminated. | A |
| 2 | After-work (conditioning) creams should be available in the workplace and workers should be encouraged to use them properly. | B |
| 3 | The use of pre-work (barrier) creams should <i>not</i> be promoted, as they are not generally effective as a preventive measure. | A |
| 4 | Workers who are at risk of CD should be provided with appropriate education about: <ul style="list-style-type: none"> • dermatitis • the principles of good hand hygiene • the use of gloves, pre-work creams and conditioning creams (emollients). | GPP |

GPP = good practice point

Box 1c Recommendations if the patient works in healthcare

Recommendation	Grade	
The physician should give the following specific advice:		
1	Skin affected by CD is more likely to become colonised with bacteria, and the risk is higher with acute severe lesions. Extra care must be taken to avoid passing bacteria to other staff and patients.	C
2	Alcohol rubs should be used at work where appropriate for hand decontamination instead of a full hand wash.	B
3	Healthcare workers with acute or severe CD should be restricted temporarily from contact with patients who are at high risk from hospital-acquired infection, until skin lesions are no longer severe or acute.	GPP
4	Healthcare workers may be able to continue with clinical work provided: <ul style="list-style-type: none"> • they are able to follow normal infection control requirements • they have not been implicated in the transmission of infection to a patient • the dermatitis does not deteriorate as a result of clinical work. 	GPP
5	If CD deteriorates as a result of clinical work, temporary adjustments to duties should be made to facilitate recovery.	GPP

GPP = good practice point

Box 2 Points for specific inquiry when taking an occupational history

High-risk jobs	Causal exposures
Agricultural workers	Acrylics
Beauticians	Alcohols
Chemical workers	Chromium and chromates
Cleaners	Cobalt
Construction workers	Cosmetics and fragrances
Cooks and caterers	Cutting oils and coolants
Electronics workers	Degreasers
Hairdressers	Disinfectants
Health and social care workers	Epoxy resins
Machine operators	Nickel
Mechanics	Petroleum products
Metal workers	Plants
Vehicle assemblers	Preservatives
	Resins
	Soaps and cleaners
	Solvents
	Wet work

Clinical background

Contact dermatitis is an inflammatory disorder of the skin. The key clinical features are acute erythema and vesiculation; while the chronic phase is characterised by dryness of the skin with thickening (lichenification), cracking and fissuring. The rash is most commonly distributed on exposed areas of skin – in particular the hands and face. Aetiology is either irritant or allergic. Irritant contact dermatitis (ICD) is caused by a direct toxic effect on the skin, most commonly due to irritant chemicals and wet work that disrupt the skin's barrier function. Allergic contact dermatitis (ACD) is a delayed type IV (T cell-mediated) immune response to specific sensitising agents, including small molecular weight chemicals and naturally occurring proteins.

The prognosis of occupational CD varies widely; similar proportions of patients report either improvement or ongoing symptoms (up to 89% in some series). A significant number (up to 10%) have persistent CD in the very long-term despite removal from exposure. Loss

of job or complete change of employment because of dermatitis is common, and this can lead to financial impairment for the individual and their family.

However, most patients manage to continue working in some capacity.

Occupational CD is notifiable to the Health and Safety Executive under the Reporting of Incidents, Diseases, and Dangerous Occurrences Regulations (RIDDOR). The employer is responsible for reporting work-related CD when the diagnosis has been confirmed by a doctor or other health professional. Therefore, physicians have an important role in alerting a patient's employer if they think that a new case of CD has been caused by work.

Dermatitis is a prescribed disease for the purpose of Industrial Injuries Disablement Benefit (IIDB), if the patient has been exposed to chromic acid, chromates or dichromates, or any external agent in the workplace (including heat and friction) that can cause irritation of the skin. A patient would have to be deemed more than 14% disabled to qualify for benefit. Physicians should be aware of IIDB prescription, and should direct patients with severe occupational CD to seek further advice from the Department of Work and Pensions.⁶

Barriers to implementation

The main potential barrier to implementing these guidelines is the difficulty of achieving effective liaison between doctors in primary or secondary care and the employer. With good communication, the care pathway can be highly effective. It is important to engage the patient positively in the process of liaison with their employer, to address concerns about job security openly, and to ensure that they have given consent for treating clinicians to share limited medical information in confidence. It is advisable to share the diagnosis of occupational CD with the employer in order to ensure completion of statutory reporting and planning of appropriate risk management strategies for the patient and their employed colleagues. Where there is access to an OH service, it is easier to protect the confidentiality of medical information. However, in the absence of an OH contact, doctors should aim to communicate, with the patient's consent, with their line manager or the employer's human resources adviser.

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References

- 1 Meding B, Jarvholm B. Hand eczema in Swedish adults – changes in prevalence between 1983 and 1996. *J Invest Dermatol* 2002;118:719–23.
- 2 Lerbaek A, Kyvik KO, Ravn H *et al.* Incidence of hand eczema in a population-based twin cohort: genetic and environmental risk factors. *Br J Dermatol* 2007;157:552–7.
- 3 NHS Plus, Royal College of Physicians, Faculty of Occupational Medicine. *Dermatitis: occupational aspects of management. A national guideline.* London: RCP, 2009.
- 4 Nicholson PJ, Llewellyn D (eds). *Occupational contact dermatitis and urticaria.* London: British Occupational Health Research Foundation, 2010.
- 5 Bourke J, Coulson I, English J. Guidelines for the management of contact dermatitis: an update. *Br J Dermatol* 2009;160: 946–54.
- 6 UK government. *Industrial injuries disablement benefit (diseases).* Directgov website. www.direct.gov.uk/en/disabledpeople/financialsupport/otherbenefitsandsupport/dg_10016183 [Accessed 7 January 2011].