WORKING PARTY REPORT ON MINIMUM STANDARDS FOR CUTANEOUS ALLERGY SERVICES

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The remit of this working party was to provide a consensus statement on minimum standards for cutaneous allergy service provision in the UK. The members were chosen for their specialist experience of practice in a variety of delivery settings, including representation from the British Society of Cutaneous Allergy (BSCA) and the British Association of Dermatologists (BAD).

The need for a consensus statement is due to moves by some Commissioners in England to provide some of their Dermatology services in a community setting. It is important that the care pathway and standards for delivering a cutaneous allergy service are defined to assist providers and their patients. It is recognized by this working party that standards for cutaneous allergy provision in the UK show variation. Service provision information and resource tools to support members in delivering their service are available.

Further guidelines for the management of contact dermatitis: an update. J Bourke, I Coulson, J English. Br J Dermatol 2009; 160: 946-54
http://www.bad.org.uk/Portals/_Bad/Guidelines/Clinical%20Guidelines/Contact%20Dermatitis%20BJD%20Guidelines%20May%202009.pdf

Joint BAD; BSCA patient information leaflet
http://www.bad.org.uk/site/1388/Default.aspx

Introduction

Contact dermatitis accounts for 4-7% of dermatological consultations. By adolescence 15% of children have become sensitised to a contact allergen, and 7% give a history of reacting following exposure;[1] this allergy usually lasts for life. It has been estimated that 4.5% of the general population is allergic to nickel[2] and 1-3% of adults are sensitised to ingredients of personal care products[3] including fragrance.

Skin disease is the second commonest occupational disease in the European Union after musculoskeletal disorders. Contact dermatitis (eczema) accounts for 70-90% of all occupational skin disease, while contact urticaria accounts for less than 10%. Up to half of workers with occupational contact dermatitis (eczema) experience adverse effects on quality of life, daily function and relationships at home.[4]

Referral

It is well documented that history and clinical features alone are unreliable in differentiating between the different causes of eczema/dermatitis. Investigation of cutaneous allergy is required to identify the allergen(s) in the following circumstances:

- Where contact allergy is suspected (especially when avoidance of a potential cause has been ineffective).
- Any persistent eczema poorly responsive to treatment (even if thought to be constitutional to exclude e.g. medicament allergy) especially hand and facial eczema.
- Regional eczema where allergy cannot be excluded e.g. exposed site, anogenital, hands, eyelid, feet, leg ulcers etc.
- Occupational dermatitis that fails to respond to initial irritant avoidance.

It is essential that all referrals must include the following patient and treatment information in the referral form:

- Indication for referral and any suspect exposures.
- Details of current systemic and topical medications and previous topical treatments.
- Details about any contraindications or risk factors to investigation.

Recommendations:

1. An approximate annual workload for a contact dermatosis investigation unit has been estimated at 100 patients per 70,000 of the catchment population per year.[5]
2. For any Dermatology service it is expected that 90% of patients will be seen within 6 weeks of referral. 90% of patients referred urgently should ideally be seen within 3 weeks.

Investigation

Patch testing

Patch testing is the main investigation in the diagnosis of allergic contact dermatitis. It requires the patient to attend for 3 days in one week (typically Monday, Wednesday and Friday). Because of the time consuming nature of the test for both patient and medical staff, it is essential to perform the test comprehensively and correctly in the first instance. Additional late readings (day 7 and beyond) may be required.

If performed inadequately it is not possible to identify those with false negative tests, potentially leading to a requirement for patients to be retested. In addition, the patient will experience prolonged unnecessary morbidity.

Although pre-prepared tests are commercially available (TRUE Test®) they only contain a limited number of test allergens and must be supplemented with additional allergens to produce an adequate test series tailored to the patient's exposures and occupation. It has been estimated that by using pre-prepared tests alone between 60% and 70% of relevant allergic reactions may be missed.[6,7] It is not best practice for patch testing to be performed with the current range of pre-prepared patch tests in isolation.

A baseline series for testing patients in the UK has been recommended by the BSCA, and is regularly updated at http://www.bcds.org.uk/downloads/BSCA_baseline_series_2012.pdf. It is estimated that this detects up to 80% of relevant allergies but must be supplemented by other series and patients own samples, including those from the workplace, to fully maximise the sensitivity of the investigation.

Not all centres stock a full range of allergens. Where necessary, patients referred for investigation of occupational skin disease, photoallergy to sunscreens, drug allergy etc should be referred directly to a more specialised centre to avoid false reassurance that contact allergy has been excluded.

Recommendations:

1. Visits are required at day 0, 2, 4 of the investigation.
2. Testing to a baseline, additional series plus the patient's own (work) samples appropriately diluted is required.
3. Work place visits to identify unrecognised contact allergens and to establish the relevance of confirmed allergens may be required.

Prick testing

Investigation of immediate hypersensitivity reactions is appropriate in up to 33% of patients referred for investigation of cutaneous allergy. It is preferable that prick testing be performed simultaneously by the investigating Dermatologist. If prick testing is not provided by the Dermatology department, an onward referral to allergy and Immunology departments will be required.[8]

Recommendation:

1. Prick testing is appropriate in up to 33% of patients to maximise diagnostic accuracy.

Staff

Investigation of cutaneous allergic reactions has to be undertaken by clinicians knowledgeable in the many potential allergenic and irritant substances. They must be experienced in interpretation of the results, [9] able to interpret material safety data sheets and be qualified to prescribe the tests.

Every unit should have a named lead senior Dermatologist to oversee the delivery of the service. It is recommended that this clinician should have received at least 6 months training at a recognised contact dermatitis investigation unit, or can demonstrate equivalent experience. A post Certificate of Completion of Training (CCT) qualification in contact allergy is currently being developed for those wishing to practice contact allergy in a specialist centre. The clinician should be capable of

undertaking work place visits to identify unrecognised allergens and establishing relevance when appropriate.[10]

It is best practice for nursing staff who undertake the application of the patch tests to have the following training:

- Qualified as a first level nurse registered with the Nursing and Midwifery Council.
- At least 6 months Dermatology experience in order to provide holistic care.
- Completed a formal in-house training programme, including an understanding of irritant and allergic contact dermatitis and skin assessment.
- Assessed as competent using a patch testing competency framework.[11]

Those who additionally read the tests require the following additional training:

- Dermatology specialist nurse with at least 2 years experience in Dermatology.
- Assessed as knowledgeable in the anatomy and physiology of cutaneous allergy.
- Assessed as competent in the education of patients with regard to skin care and topical therapies.
- Assessed as being an "expert nurse" using a patch testing competency framework.[11]
- Competency should be maintained by means of updates, assessment by the lead Consultant and by continuous exposure to the service to ensure the skill set is sustained at a high level.

The investigation of cutaneous allergy is time and labour intensive when done to a high standard. As an example of staffing levels required it is estimated that for every 8-12 patients tested there is a need for:

Monday	One suitably trained Dermatologist to evaluate the patient and ensure there are no contraindications. Prescribe the allergens to be tested (4 hours). Two nurses to prepare and apply the allergens (6 hours).
Wednesday	One suitably trained Dermatologist/specialist nurse to read and interpret the results and prescribe further allergens as required. Undertake prick testing (3 hours). One nurse to act as chaperone, prepare and apply additional tests and assist with UV irradiation when photo patch testing (3 hours).
Friday	One suitably trained Dermatologist to read the results; it is considered best practice for the Dermatologist to undertake the final consultation to interpret the results and ascribe a relevance, giving appropriate advice and prescribing further treatment to the patient dependant on results (4 hours). 1 nurse to act as chaperone (4 hours).

Recommendations:

It is recommended the same practitioner sees the patient at every visit to ensure continuity in the investigation and interpretation of the results.

1. The investigation is labour intensive and requires the close involvement of a suitably trained Dermatologist.
2. To maintain competence Dermatology clinicians should investigate at least 200 cases per annum.

Facilities

The clinic requires a dedicated lockable area for storage of allergens including a refrigerator and freezer to prevent degradation of materials prior to use.[12] All drugs and other chemicals used in the service must have a Control of Substances Hazardous to Health (COSHH) assessment and be stored in a secure place.

A Pharmacy or similar facility is essential for the preparation, into a form suitable for testing, of patient samples including work materials.

The unit requires an appropriately sized flat work surface to enable the tests to be prepared and applied on the day.

Waiting areas must be separate from treatment areas and be suitable for children.

Facilities must be available for resuscitation in the event of an anaphylactic reaction and staff suitably trained to manage any event.

Centres undertaking Photopatch testing require a suitable UVA source that is regularly maintained to ensure that the dose of UVA is delivered as prescribed.

Recommendations:

1. Requires dedicated and secure facilities for the preparation and storage of chemicals used in tests.
2. Resuscitation trolley must be nearby in the event of an anaphylactic reaction with staff suitably trained to manage any event.

Clinical Governance

Investigation of cutaneous allergy is delivered by a multi-professional team. Members of the team and their roles in contributing to the service should be recorded.

The team should have regular meetings. The broad aim of these meetings is to ensure that the service is focused on the need to provide timely, safe and effective services to local patients. These should occur at least 4 times per year.

The agenda for these regular clinical governance meetings should include the following elements:

1. Review of activity since the previous meeting. Patient contacts can be coded as follows to provide an indication of the complexity of work undertaken:

   U271 Patch test - BSCA baseline only
   U272 Patch test - other series tested
   U276 Patch test - own products
   U277 Photo patch testing
   U288 Prick test

2. Review of waiting list data to assess demands on the service and issues for service delivery.
3. Review of adverse events.
4. Discussion of difficult or instructive cases. As with any high volume clinical service, there are some cases that respond in an atypical or unusual way. Discussion of these few cases is

often instructive for team members. Furthermore, such discussion is usually helpful in order to optimize treatment for individual cases and to improve patient outcomes generally.
5. Equipment issues.

It is recommended that results from investigations should be recorded in a database with a minimum dataset. The results should be benchmarked annually against national pooled data as part of personal and departmental clinical governance procedures. The outcome should be presented to the local Dermatology team annually to encourage best use of the service.

There is a need for ongoing training of team members. New evidence-based practice, research, national standards, guidance and audit results all need to be disseminated to staff to ensure the implementation of procedures which achieve quality outcomes. Training and Clinical Professional Development (CPD) should be discussed and planned to ensure that all team members fulfil professional requirements to be fully up-to-date with appropriate CPD compliance. It is recommended that the lead attend update meetings on contact allergy at least once every 2 years.

The unit should have up-to-date reference books on contact allergy including occupational skin disease and relevant journals.

Recommendation:

1. A regular review of patch testing activity to review and maintain service standards.

Summary

These minimum standards for cutaneous allergy services have been written with the intention of ensuring that patient care, in this important area of skin investigation, is optimal.

Some of these key service requirements are highlighted below:

1. Estimated workload - 100 per 70,000 population.
2. Requires visits at day 0, 2, 4.
3. Patch test a baseline, additional series plus patient's own (work) samples appropriately diluted.
4. Work place visits may be required both to identify unrecognised contact allergens, and to establish the relevance of confirmed allergens.
5. Prick testing is essential in up to 33% of patients to maximise diagnostic accuracy.
6. The investigation is labour intensive and best practice includes the close involvement of a suitably qualified Dermatology clinician.
7. To maintain competence it is considered best practice that a clinician should investigate at least 200 cases per annum.
8. Requires adequate secure facilities.
9. Regular review and updating is essential to maintain standards.

In particular, the working party hopes that these standards will help inform Commissioners of the requirements and service standards for providing cutaneous allergy services in the UK. Additionally, the working party anticipates a benefit from these minimum standards for existing services as a guide to improving practice.

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Chair of the Cutaneous Allergy Services Working Party

References

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[4] *British Occupational Health Research Fund systematic review of contact dermatoses* http://www.bohrf.org.uk/projects/dermatitis.html

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[6] *TRUE test a reliable method for patch testing in the community? Foulds I. Br J Dermatol 2007; 157 suppl 1: 85.*

[7] *The detection of clinically relevant contact allergens with a standard screening tray of 28 allergens. Patel D, Belsito DV. Contact Dermatitis 2012; 66: 154-8.*

[8] *Allergic skin disease: investigation of both immediate and delayed type hypersensitivity is essential. Usmani N, Wilkinson SM. Clinical and Experimental Allergy 2007; 37: 1541-6.*

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[10] *Guidelines for the management of contact dermatitis: an update 2009 J. Bourke, I. Coulson* and J. English.*

[11] *Royal College Nursing, 2005; "RCN Competencies: an integrated career and competency framework for dermatology nursing" London.*

[12] *Patch test technique. Wilkinson SM. Br J Dermatol. 2011; 164: 4.*