

**SCOTTISH GOVERNMENT HEALTH
DIRECTORATES**

**REVIEW OF ALLERGY
SERVICES IN SCOTLAND**

**A Report by a Working Group
of the Scottish Medical and
Scientific Advisory Committee**

In memory of

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(1950-2005)*

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&
Member of the SMASAC
Review of Allergy Services in Scotland
Working Group*

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ISBN: 978-0-7559-7576-1 (web only)

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Produced for the Scottish Government by RR Donnelley B61205 06/09

Published by the Scottish Government, June 2009

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EXECUTIVE SUMMARY

1. In 2005 The Scottish Medical and Scientific Advisory Committee (SMASAC) established a Working Group to review progress against the SMASAC "Report on Immunology and Allergy Services in Scotland (2000)", specifically in relation to allergy services. The Working Group has found little evidence of strategic developments in the intervening period, although modest improvements have taken place in the number of consultants and nurse specialists involved in allergy. The burden of allergic disease in Scotland, as in other parts of the UK, is high and current service provision is clearly failing to meet the needs of many patients in terms of knowledge at primary entry points to the NHS and access, particularly to specialist services.

2. This Report identifies a number of key barriers to the delivery of high quality equitable allergy services for both children and adults in Scotland, including:

- insufficient numbers of medical specialists and trainees in the system
- insufficient numbers of other healthcare professional staff adequately trained in allergy, including general practitioners, nurses, dietitians and pharmacists
- lack of accessible information for patients, carers and the general public to support understanding and self-management of allergic disease
- a fragmented service with no clear linkages between primary, secondary and tertiary allergy care provision
- need for better promulgation of evidence based practice e.g. patient referral protocols, care pathways for children and adults, and a standardised approach to clinical management through national guideline development
- need for improved data collection and audit as tools to better healthcare planning and delivery
- need for more research into allergy, particularly in areas where information and knowledge are deficient.

3. The Working Group believes that these barriers could be overcome by taking a reconfigured approach to the delivery of allergy services which maximises potential for improvement in the context of developing healthcare frameworks in NHS Scotland. In the case of adults, the model of Regional Managed Clinical Networks (MCNs) is recommended. MCNs have the clear potential to build incrementally on existing resources, particularly manpower, to improve service delivery. The Report acknowledges that Regional Managed Clinical Networks will need effective operational structures and enthusiastic clinical leadership and investment, underpinned by robust linkage

to relevant NHS Boards, if allergy is to achieve the priority it merits in terms of health service planning and delivery in the future.

4. In relation to paediatric allergy, the Working Group also recommends a Managed Clinical Network approach, this time at national level, linking a number of Regional Allergy Centres. These initiatives would provide better access to existing expertise and act as a focus for improved service delivery and for development of diagnostic and therapeutic services not currently available in Scotland, including adolescent transition arrangements linked to adult allergy care structures.

5. Improved data collection, analysis and links across datasets are required if truly effective health service planning for allergic disease is to be achieved in Scotland. It is proposed that a Working Group is set up to identify ways in which current data and information deficiencies can be addressed.

6. Chapter 7 includes a number of subsidiary, but nonetheless important, recommendations, many of which could be taken forward through the vehicle of Managed Clinical Networks. The Working Group commends this report to NHS Boards and Regional Planning Groups in Scotland as a pragmatic way forward to not only provide better access to allergy services, but also to improve the quality of those services for both children and adults.

INTRODUCTION

Context

1.1 In September 2000 the then Scottish Executive published the first report of the Scottish Medical and Scientific Advisory Committee (SMASAC) on "Immunology and Allergy Services in Scotland"¹. This took place against a background of widespread perceived problems with the delivery of clinical and diagnostic services for patients with primary immunodeficiency and allergic disorders. Particular concerns were raised over the rising incidence and prevalence of these disorders, their complex management requirements and the underdeveloped state of NHS services to cope with demand at an adequate and sustainable level in terms of quality and equity of access.

1.2 The current Working Group (membership at Annex G) was constituted in 2005 to review the 2000 report and to make recommendations on the implementation of those aspects of the report relating specifically to the management of allergy, taking into account recent UK developments.

1.3 Further to this primary task, the Working Group was asked to:

- Focus on the development of resources and capacity to aid patient diagnosis and management particularly within primary care, and give consideration as to how primary care staff can be supported in this work
- Take account of services for patients suffering allergic reactions to anaesthetic agents

1.4 The Working Group deliberated between 2005 and 2007 during which time it met on three occasions, collecting and assessing pertinent data. Verbal and written information was also received internally from members, from external sources and from relevant stakeholders.

1.5 The publication of this report has been delayed for a number of reasons, including the change in administration in Scotland in May 2007 and the need to take account of the new health policy document, the *Better Health, Better Care: Action Plan*, published in December 2007². The Scottish Government Health Directorates were also mindful of the need to consider the *House of Lords Science and Technology Committee Report on Allergy* published in 2007³, and the Department of Health response to that report⁴.

Components and recommendations of the SMASAC Report on Immunology and Allergy Services in Scotland (2000) which relate specifically to allergy

1.6 The following recommendations were made in the SMASAC report in 2000. The Working Group reconsidered these seven years on, in the light of professional and organisational changes which have taken place over that time period.

Recommendations (2000) which remain desirable and potentially achievable:

- Increase in specialist consultant (and trainee) adult/paediatric establishment.
- Establishment of Regional Allergy Centre(s).
- Increased availability of local outpatient allergy services, including desensitisation.
- Development of a comprehensive programme of training and education in allergy for general practitioners and other primary care-based professionals.
- Development of nurse specialist services and specialist dietetic support.
- Development of a robust system for regular collection of accurate allergy-related workload data (outpatient, inpatient, waiting times, relevant laboratory statistics).
- Encouragement for objective evaluation of alternative and unconventional diagnostic and treatment methods relating to allergy.
- Support for funding of research projects relating to allergy, from the Chief Scientist Office.
- Undertaking a nationwide epidemiological study into the prevalence of severe allergic disease.
- Publication of a comprehensive guide to allergy services for professionals in the NHS.

Recommendations (2000) deemed impractical, of limited benefit/lesser priority or superseded by actions undertaken by other bodies:

- Establishment for a Scottish Registry for the more severe forms of allergy, including anaphylaxis.
- Development of guidance in the management of life-threatening allergic conditions.

1.7 The following Chapters describe the burden of allergic disease in Scotland and current service provision, including issues relating to staffing. The specific topic of allergic reactions to anaesthetic agents is covered briefly, and a new model of allergy service organisation through Managed Clinical Networks is recommended as a pragmatic solution to problems in this area.

THE BURDEN OF ALLERGY IN SCOTLAND

Background

2.1 The UK has some of the highest prevalence rates of allergic conditions in the world, with over 20% of the population affected by one or more allergic disorders at any point in time. One in three of the UK population will experience problems with allergic symptoms at some point in their lives. Scotland has particularly high prevalence rates for wheezing and other allergic symptoms, even in comparison with other areas of the UK.

2.2 The prevalence of allergic disorders, including anaphylaxis, allergies to foods, latex, insect venom and drugs, allergic rhinitis, allergic asthma and atopic eczema has increased dramatically over the past 3-4 decades. Although there is some, as yet inconclusive evidence, that trends in asthma may now be stabilising, the frequency of many allergic disorders, minor and serious, continues to rise. Mortality from allergic disorders is uncommon, but there are still approximately 100 deaths due to asthma each year in Scotland.

2.3 Much of the available background information and evidence supports the contention from many health care professionals, Parliamentarians and patients that NHS services for allergy patients are inadequate. There is general acceptance on all sides that improvements to allergy services are needed, but an absence of consensus, particularly amongst medical professionals, as to how these improvements can be made most efficiently, effectively and timeously. The care of patients with chronic diseases such as allergy is a major challenge to national health care services not just in the UK, but across the world.

2.4 Allergy, in all its forms, has a considerable impact at many levels: individual, domestic, employment, educational, population, political, professional and economic. The effects are felt most acutely at the personal level but also have great significance at the interface between affected individuals and supporting services delivered by the NHS.

2.5 Information on the true scale of the allergy problem, and trends in allergic disease, are essential for workforce planning and health service configuration, but data are fragmented and incomplete. To help inform the Working Group's deliberations, Professor Aziz Sheikh, Head of the Allergy and Respiratory Research Group in the Division of Community Health Sciences at the University of Edinburgh, led a CSO funded study in 2006/7 which has analysed available national datasets, to estimate the burden of allergic diseases in Scotland⁵. Some key messages in the detailed report from that analysis are:

- **Allergic disorders are extremely common in Scotland and are responsible for substantial morbidity, healthcare utilisation and cost to the NHS**

- **About 30% of children and 25% of adults suffer from allergies in Scotland**
- **Over 4% of GP consultations and 1.5% of hospital admissions are for allergic disease**
- **Admissions for asthma and anaphylaxis are much more common in urban than in rural populations**
- **Allergic disorders cost NHS Scotland over £130m/year in direct costs (2005 figures) the majority being incurred in community care.** (This figure clearly does not include indirect, personal or business costs such as school or work days lost; expenditure on over-the-counter (OTC) medication and alternative therapies; or impaired quality of life.)
- **The high proportion of children affected by allergy will impose a significant burden on health service providers for decades to come.**

2.6 **Table 1** provides a list of potential sources of data and information on allergy, from Scottish, UK and international databases and studies. Scottish sources include hospital discharge (SMRO1) data and primary care practice team information (PTI), collected routinely by the Information and Statistics Division (ISD) of National Services Scotland (NSS) for NHS Scotland. Annexes A & B include detailed tables of SMRO1 and PTI data for years 2003/04 to 2006/07 covering a range of common allergic conditions, which give an indication of the very significant burden allergy places on both primary and secondary care services in NHS Scotland.

Table 1: Current potential sources of allergy data and information

Hospital Care
Information Services Division (ISD) hospital discharge data SMR01 data
Primary Care
Practice Team Information Prescription Cost Analysis Quality and Outcomes Framework data (at present, principally asthma-related) Primary Care Clinical Informatics Unit Record
Primary and Hospital Care
The Scottish Longitudinal Study General Register Office for Scotland (GROS)
UK Databases
Office of National Statistics (supplemented by GROS data) General Practice Research Database Doctors Independent Network International Medical Service Health Q-RESEARCH
Survey Data
Scottish Health Survey 1998 and 2003/4 Morbidity Statistics in General Practice Economics and Social Data Service Annual Population Survey National Reference Cost Index National, European and International Disease Surveys

2.7 These existing sources of potentially valuable data and information in Scotland and the UK each have particular strengths of structure and content. Equally, many have identifiable limitations and deficiencies in terms of:

- utility for accurately documenting/archiving activity and patient information
- delineating allergy-specific activity from related or overlap disease activity
- incomplete data collection affecting many aspects of the patient journey (e.g. outpatient activity, OTC and hospital medication, A & E attendance, out of hours primary care consultations, deficiencies in disease coding etc)
- linkage of individual patient information across different datasets (primary and secondary care and, in the future, additional data repositories e.g. in community pharmacies).

2.8 Improved data collection, analysis and linkages relevant to service demand, capacity, structure and costs are required if truly effective health service planning for allergic disease is to be achieved in Scotland.

The report: “*The Health Burden from Allergic Disease in Scotland: Analysis of National Datasets*”⁵ referred to at paragraph 2.5 recommends that consideration be given to setting up a long-term Working Group to address these issues. The Working Group endorses this recommendation.

CURRENT NHS ALLERGY SERVICES IN SCOTLAND

General allergy service provision

The Patient Perspective

3.1 Experiences of patients, and their relatives, of interaction with NHS allergy services vary across Scotland, but are often negative. The Anaphylaxis Campaign (www.anaphylaxis.org.uk) has over 600 members in Scotland. Anecdotal views from members gathered by the Campaign for this review show support for, and appreciation of, care from school nursing staff, general practitioners and specialists but with broader criticisms about a range of issues including:

- lack of access to allergy specialists
- waiting times
- deficiencies of knowledge and expertise in healthcare staff
- inadequate information and access to information
- lack of holistic approach to care, follow-up and aftercare
- inadequate linkage of care across different service levels
- adverse effects of allergy on schooling, work and social life.

3.2 Even those patients or parents who had had positive experiences expressed concerns about the lack of a whole-system approach to care, particularly at the interfaces between healthcare providers, social services and education services. These findings are corroborated by previous UK studies of patient perceptions and experiences of NHS allergy services.

Health Board Survey of service provision and prioritisation for clinical allergy across Scotland

3.3 A letter and 3 part questionnaire (Annex C) were sent to the Medical Directors of all NHS Boards in December 2005. Part one of the questionnaire was intended to capture a general and subjective view from each Board of existing local allergy services. Parts two and three were designed to access more detailed local information about organisation and provision of services at primary care and hospital levels. Medical Directors were asked to liaise with appropriate service providers in completing the questionnaire.

3.4 14 out of 15 NHS Boards in Scotland responded to the exercise by completion of the questionnaire in whole (n=8) or in part (n=6). In several areas, Medical Directors delegated the task of collation and completion to other colleagues within the NHS Board area and within some Boards different

sections were completed by different service provider units, with some overlap. Respondents and detailed responses are provided at Annex D.

3.5 In view of the necessarily remote method of information collection, difficulties in identifying and directly targeting specialist personnel and the disparate nature of the service providers involved, any conclusions drawn from the survey must be of a very general nature and should be interpreted with caution.

High Level Conclusions from Health Board Survey:

- Existing clinical allergy services in general practice and at specialist level are generally regarded as inadequate for adults and children.
- Allergy services are seen as being significantly limited in both capacity and range of services at all levels.
- Allergy service development is regarded as being of low priority for additional resource allocation.
- Allergy is regarded as a significant problem across Scotland but only a minority of Boards see it as a major clinical problem.
- Defined, formal cross-system leadership and co-ordination for allergy services at Health Board level would be a potentially valuable mechanism for improving service quality.

Primary Care

3.6 Approximately 90% of patient episodes in NHS Scotland currently take place within primary care. Given the relatively high prevalence of some allergic conditions, notably asthma (see Annexes A & B), it is appropriate that these patients should, in the main, continue to be managed in primary care, with access to specialist input and support where required.

3.7 Catchment area referral pathways have a historical basis and remain as outlined in the 2000 SMASAC report. Depending on local service configuration the possible options, (currently limited by capacity or available expertise), for secondary care referral (adult or paediatric) are:

- a general physician/paediatrician
- an organ-based specialist providing care for allergic disease within the context of his/her specialty interest but who may have only limited expertise in the diagnosis and management of systemic allergic disorders
- an allergy specialist providing secondary/tertiary-level diagnostic and clinical management services across the spectrum of allergic disease, including 'orphan' multisystem and systemic allergic disorders.

There is little current capacity or potential for cross-boundary flow of patients to existing specialist allergy services.

Secondary Care and Specialist Services

3.8 Provision of Consultant-led specialist allergy services across Scotland, particularly in relation to systemic disorders, is neither uniform in structure or service repertoire, nor equitable in terms of local service access. Capacity is limited by the small numbers of current service providers (see Table 2) and by the model of embedding allergy provision within specialty departments which have broader service remits and competing internal service priorities. The range of services varies, with no centre in Scotland offering the full repertoire of activities as encompassed by the *National Specialised Services Definition Set for Allergy (No. 17)*⁶. The majority of immunology services (the principal, though not exclusive, providers of specialist allergy care) are led by single-handed consultants. There are no established NHS Consultant Allergist posts in Scotland.

Table 2: Identified hospital-based staff involved in providing specialist allergy services (by Health Board)

Staff (wte)	Glasgow	Grampian	Lothian	Tayside	WOSAS	Other
Consultant Medical	2.0 (I)(0.4A) 2.0 (PI&ID) 1.0 (PD) ¹	1.0 (I)(0.2A)	1.0 (P)(0.2A) ² 0.1 (P)(0.1A) ³	0.5 (I)(0.1A)	1.0 (A)	
Other medical	1.0 (StR)				1.0 (A) ⁴	
Specialist nurse	0.4 (PI&ID) 0.8 (D)	2.0 (I)(0.8A) 1.0 (ENT) ⁵ 1.0 (ENT) ⁶ 1.0 (PN) ⁷		0.4 (A)		
Other nurse					0.4 (A)	
Dietitian	0.4 (PD) ⁸	1.0 (PDi) ⁹	0.5 (PDi) ⁹		0.2 (A)	0.1(A) ¹⁰
Other					1.0 (A) ¹¹	

Key: A = Allergy component of whole post, where definable; D = Dermatology; I = Immunology; P = Paediatrics; PD = Paediatric Dermatology; PDi = Paediatric Dietitian, PI&ID = Paediatric Immunology & Infectious Diseases; PN = Paediatric Nurse Specialist; StR = Immunology Specialist Register; WOSAS = West of Scotland Anaphylaxis Service

Notes:

1. Consultant Paediatric Dermatologist with an interest in Allergy, RHSC, Glasgow
2. Consultant Paediatrician with an interest in Allergy, St. John's Hospital, Livingstone
3. Academic Consultant Paediatric Allergist, University of Edinburgh (NHS wte commitment)
4. Partial input from 3 x Clinical Assistants (total = 1.0wte)
5. Specialist Nurse in ENT, major commitment to Allergy (Elgin)
6. Specialist Nurse in ENT, partial commitment to Allergy (Elgin)
7. Specialist Nurse in Paediatrics with an interest in Allergy (Elgin)
8. Allergy component of Paediatric Dermatology Dietitian post
9. Allergy component of General Paediatric Dietitian post
10. Adult Dietitian, NHS Western Isles
11. Clinical Scientist

3.9 There is one immunology Specialist Registrar post in Scotland but no allergy trainees.

Exemplars of specific allergy initiatives in Scotland since 2000

The West of Scotland Anaphylaxis Service provides locally-focused, specialist services aimed specifically at adult patients with severe, life-threatening allergic disorders and with a linked role in the education and support of referring practitioners. Development and local dissemination of a structured patient referral protocol (Annex E) agreed through the West of Scotland Regional Planning Group, has been successful in maintaining waiting times at acceptable levels since 2002. The service has a defined and specific focus on the diagnosis and management of anaphylaxis underpinned by patient / healthcare staff education and does not aim to operate as a generic allergy clinic delivering care across a broader range of allergic disorders. A password protected website operated by the service is available as an easily accessible educational resource for clinicians (www.anaphylaxisclinic.com).

NHS Tayside Allergy Advisory Group

In Tayside there have been efforts in recent years to improve allergy service provision within current hospital specialist structures and resources through focusing cross-specialty interest and expertise within an informal allergy-orientated multidisciplinary advisory structure. The aim is to promote more effective integrated working practices; to allow sharing of experience and expertise through local networking to define agreement on priorities for service provision and provide direction for developments and service re-design; to enhance liaison with specialist services nationally; to provide a focus for audit, clinical governance, training and research; and to act as a recognisable and accessible local body for provision of advice and guidance to healthcare professionals and the public.

Dietetic services

3.10 Table 2 includes the (currently limited) identifiable dedicated dietetic staff resources for children and adults with allergic disease. Additional input of advice from general dietetic services for patients referred from general and specialist medical clinics also occurs on an *ad hoc* basis. A national survey of dietitians undertaken by the Working Group in 2005 indicated concerns about:

- capacity for optimal dietetic involvement in allergy diagnosis, management and follow-up
- fragmented and disconnected services
- uncertainties in allergy referral pathways involving dietetic services
- availability of sources of relevant information
- patchy availability of food challenge services for both children and adults
- lack of clinician support and continuity of care, often resulting in conflicting advice being given to patients.

Some dietitians providing *ad hoc* services had concerns about their lack of expertise and training in managing complex food allergies.

3.11 These findings point to a need for improved training and support for dietitians, both hospital and community, in allergy (particularly in the area of food challenges), with access to the most up-to-date evidence base to enhance existing clinical skills and improve knowledge and confidence in food allergy management.

Diagnostic Laboratory Services

3.12 Eight NHS laboratories in Scotland provide *in-vitro* conventional allergy tests within their repertoire using validated methodology with accepted clinical utility in allergy diagnosis. The relatively static pattern of requesting (see Table 3), within individual centres, is in contrast to rising trends for many other laboratory diagnostic tests of non-allergic conditions. In part, this could be explained by the significant popularity and high uptake of *in-vitro* allergy investigations since their introduction in Scotland two decades ago, allied to open access and ready availability. All of the provider laboratories are conditionally approved or accredited with Clinical Pathology Accreditation (UK) Limited. Each laboratory also participates in the National Pathology Benchmarking Service as mandated in HDL (2006)¹²⁷, which should allow access to ongoing, comparative, allergy test workload data within Scotland and across the UK. There is a high level of support for the quality, accessibility and range of laboratory allergy testing in NHS laboratories across Scotland, and clinicians welcome the fact that diagnostic services are well integrated into existing care pathways.

Table 3: Annual laboratory allergy test workload 2000-2005 (total & specific IgE)

Hospital/Year	2000/01	2001/02	2002/03	2003/04	2004/05
Total IgE					
ARI	3482	3491	3424	3618	2906
Crosshouse	-	-	-	-	-
ERI	-	-	3159	2586	2742
Monklands	-	-	1975	132	133
Ninewells	-	1508	1484	1501	1573
Raigmore	-	997	837	770	995
Yorkhill	-	-	250*	246	331
WIG	2974	3275	2794	2508	1837
Specific IgE					
ARI	32389	33191	33981	34126	33770
Crosshouse	4919	4489	4484	5045	5639
ERI	-	-	2564	3004	3329
Monklands	-	-	1535	4007	4383
Ninewells	-	5609	5561	4893	4241
Raigmore	-	4387	3683	3388	4202
Yorkhill	-	-	908*	830	1358
WIG	24310	23526	22300	18520	18157

Key: ARI = Aberdeen Royal Infirmary, ERI = Edinburgh Royal Infirmary, WIG = Western Infirmary, Glasgow

(-) data not available or test not offered within laboratory repertoire

* extrapolated from 6 months data

Support for Allergy Research

3.13 Figures from the Chief Scientist Office indicate that approximately 1000 requests for financial grant support for scientific projects have been received since 2000. A small proportion of this overall figure, eight in total, were grant applications of relatively limited scale relating to projects with a principal or major allergy focus. All eight applications for funding were successful.

Conclusion

3.14 Since publication of the SMASAC 2000 Report there has been only limited strategic development in terms of allergy service provision. There has been a small increase in the number of consultants providing specialist allergy services within a broader portfolio of clinical responsibilities but there are still no consultant adult allergist posts in Scotland, and three of the four immunology centres are manned by single handed consultants.

3.15 The West of Scotland Anaphylaxis Service has been established since publication of the 2000 report and there has been a significant development in terms of nurse-delivered specialist allergy services in Grampian, unfortunately not mirrored in any other Health Board areas. The Tayside clinical networking approach has been developed since 2000 and offers, at least in part, a potential model for improved service delivery, though concerns have been expressed over operational capacity, competing clinical demands and long-term sustainability.

CURRENT STAKEHOLDERS IN ALLERGY CARE

4.1 There is a significant body of evidence to indicate that service capacity for allergy throughout the NHS is inadequate. The current hierarchical model of care has several inherent flaws and inefficiencies which impact adversely, particularly at the interface between different care providers, with the result that:

- many patients lack ready access to rational and practical allergy information which would allow effective self or family-based care
- some primary care staff lack the knowledge and training to provide fully effective frontline allergy care
- many hospital clinicians have limited expertise in the diagnosis, assessment and management of allergy, especially where disease is systemic
- specialist allergy care provision is limited in capacity and geographical accessibility
- significant multisystem disease is only rarely managed at a single, integrated point of contact between patient and service.

4.2 Increasing service capacity (particularly in terms of new staff appointments) will not be achievable overnight. In the short term, currently available skills and resources need to be harnessed, redeployed and focused on managing areas of greatest need. Improved education and training opportunities in allergy will need to be made available to a wide range of clinical staff. Annex F outlines what is currently available in this context and highlights shortcomings.

Individual Self-Care and Self-Management

4.3 Many, perhaps most, patients with allergic disorders manage their own disease symptomatically and seek help from their general practitioner only when necessary. For example, only around 50% of hay fever sufferers seek professional medical help, preferring the simple option of self-treatment, often with advice from community pharmacists.

4.4 This kind of allergy self care is, in general, entirely appropriate but in some circumstances is potentially ill-informed and misdirected. The problem is fuelled by the lack of accessible information for the public at large, with consequent issues over lack of a precise diagnosis, inadequate definition of sensitivity to specific allergens and insufficient clarity in confirmation or exclusion of allergy as a cause of particular symptoms. On occasion, this can result in inappropriate self-directed allergen avoidance measures and unnecessary or sub-optimal use of over-the-counter medication.

4.5 The success of self-management strategies is crucially dependent on ready access to clearly written and evidence-based information integrated with clear and concise self-treatment and action plans. There is evidence that symptom outcomes are better where treatment is combined with educational information supplied from health professionals compared to treatment alone. However, there is concern amongst specialists that some allergy information currently available to the public has an inappropriate emphasis on unvalidated, complementary approaches to diagnosis and management.

4.6 The publication of *Better Health, Better Care: Action Plan²* in December 2007 signalled the intention to develop a long-term conditions Strategy, in conjunction with the Long Term Conditions Alliance, Scotland. The Strategy will be published later this year. In addition, a new Long Term Conditions Collaborative has been established which will engage all 14 territorial NHS Boards in a 3 year national programme which covers a number of important workstreams, including self-care. In September 2008 the Minister for Public Health launched the National Strategy for Self Management, which has been developed by the Long Term Conditions Alliance to reflect the kind of services people with long-term conditions are looking for. Importantly it identifies 5 stages at which patients particularly need information and support and emphasises the need for them to be signposted to where that can be accessed.

Primary Care

4.7 General practice constitutes the buttress of front line management for most allergic disease presenting to the NHS and the vast majority of patients have symptoms which can be adequately and appropriately managed in primary care. However, few primary care staff will have had formal education or training in the scientific basis, diagnostic approach or optimal management of allergic disease. This makes “shifting the balance of care” so that more allergy services are delivered by the primary care team, rather than by hospital specialists, problematic.

4.8 Surveys of general practitioner attitudes reveal a significant level of assurance in relation to diagnosis and management of common allergic problems such as asthma or rhinitis. However, there is less confidence in relation to specific areas such as management of more complex or treatment-resistant disease, allergic disease in children and appropriate investigation of allergic disease, partly because access to appropriate advice and specialist secondary care services is generally inadequate. Allergy to foods, latex, drugs and insect venoms, along with childhood allergies, are frequently cited as areas of particular individual concern.

4.9 The Working Group believes that the following are essential prerequisites for improving delivery and quality of allergy services in primary care:

- Recognition and awareness of the burden of allergic disease at local level

- Improved access to basic initial and ongoing training for all staff
- Enhanced training for staff who are providing care at a higher level
- Expanded service infrastructure and capacity
- Improved motivation and incentives
- Improved specialist secondary/tertiary level support for allergy management in primary care.

General Practitioners with a Specialist Interest

4.10 General Practitioners with a Specialist Interest (GpWSIs) have particular training and experience which enable them to provide enhanced levels of service from a community base and perspective. Based on experience in other clinical areas (e.g. dermatology and rheumatology) elements of allergy care which might potentially improve with GPwSI-delivered include improved accessibility, with reduced waiting times and resultant reduction in the pressure of demand on secondary care.

4.11 GpWSIs can act as a source of expert advice to other members of the primary care team, as well as taking referrals and providing education and training at a community level. This requires an appropriate local service infrastructure and an adequate, defined commitment of time within job plans. However, the success, safety and sustainability of such a service model is also critically dependent upon close support, advice, training and ongoing education from specialist allergy services.

4.12 In addition, provision of GPwSI services have been shown to be associated with significant additional service costs compared to hospital outpatient clinics⁸. This model is not therefore a cost-neutral option and does not offer an inexpensive route to resolving current hospital specialist allergy service deficiencies.

Specialist Societies/Voluntary Sector

4.13 At UK level, the British Society for Allergy and Clinical Immunology (BSACI) and Allergy UK have both made a clear commitment to develop, support and promote primary care allergy services, respectively through formation of a Primary Care Working Group (PCWG) and Primary Care Allergy Network (PCAN). Both initiatives are multidisciplinary in their outlook, focused on the general practice setting and based on the central premise that the majority of patients with allergic disorders can and should be effectively and safely managed in a primary care environment.

4.14 The PCWG and PCAN have overlapping and shared objectives to progress recommendations relevant to primary care made in the 2004 *House of Commons Health Committee Report on the Provision of Allergy Services*⁹.

Their organisational aims to address allergy service deficiencies in primary care are to:

- improve delivery of care, through development of guidelines, patient referral pathways and allergy training opportunities
- analyse the costs and benefits of allergy service development in primary care
- reflect the needs of an allergy-focused workforce in primary care
- work with allergy specialists to establish supervision and mentoring opportunities
- identify clinically relevant and measurable allergy-related outcomes that may be included in future revisions of the General Medical Services contract Quality and Outcomes Framework
- promote postgraduate opportunities for primary care-based clinicians to develop the necessary knowledge and to deliver high quality allergy care
- publicise the current deficiencies in primary care allergy services
- collaborate in development of generic, locally adaptable modules on allergy for medical, nursing and allied health professional curricula
- lobby for funding in support of research into allergy management in primary care.

Pharmacist services

4.15 There is considerable potential for expanded pharmacist input into community-based management of allergic problems in line with an updating of the contractual framework for community pharmacists. Two of the four core components provided within the structure of the new community pharmacy contract (Minor Ailments and Chronic Medication Services) are of particular potential relevance for many patients with allergies.

4.16 The Minor Ailments Service will allow community pharmacists to treat common conditions enabling prescription charge-exempt patients to use the community pharmacy as the first port of call for treatment. The pharmacist will be able to act as a source of advice on medication and other issues, supply medicines within relevant prescribing structures or refer to other healthcare services if additional measures are necessary.

4.17 The Chronic Medication Service will provide continuity of pharmaceutical care for patients with long-term conditions through harmonising serial/repeat dispensing, supplementary prescribing and the pharmaceutical care model schemes. This will allow patients to have their

medicines supplied, monitored and reviewed as part of a shared care arrangement between their community pharmacist and general practitioner.

4.18 Extending the role of the pharmacist in allergy management will clearly require additional support and training for this group of staff. Mechanisms for maintaining knowledge and expertise through continuing professional development, reflective practice and mentorship or institutional support will need to be established.

Dietetic services

4.19 Assessment of the nutritional needs of patients with allergic disease is a significant component of care in the context of food allergy and food intolerance, particularly where this involves a broad range of common dietary constituents, and in children with food-related sensitivities. The dietitian has a central role to play in formulating advice about diagnostic and therapeutic exclusion diets and, within specialist services, in the performance of open or blinded food challenges. There are few NHS dietitians in Scotland at present with significant training or experience in the relevant aspects of allergic disease, either in the community or in secondary care.

Nurse Specialists

4.20 Nurse specialists constitute one potential mechanism for addressing a significant component of routine and straightforward allergy demand in the NHS. They can operate in a primary care or hospital environment, or across both sectors, in partnership with medical staff. Referrals to nurse-led clinical services may be made directly or after triage by medical staff. Deployment of nurses in this way could help mitigate current difficulties in recruiting specialist medical practitioners in this area. However, the role and effectiveness of specialist nurses with an interest in allergy remains to be formally evaluated, both from a clinical and cost effectiveness perspective.

Hospital services

Organ-based specialists

4.21 Within the UK hospital environment much secondary allergy care is provided by (non-allergy) specialist organ-based teams, for example in respiratory medicine, dermatology, gastroenterology, ENT, general paediatrics etc. The team will include physicians whose training and practice has covered a variable element of allergy, mainly in relation to the tissue or organ system relevant to their core specialist interest. Allergy awareness, interest and expertise in these teams are therefore variable. Nevertheless, organ-based clinicians constitute a key and vital component of referred, secondary tier allergy care in the NHS.

4.22 However, for patients who do not conform neatly to an organ-based system of clinical care or who may require specialist methods of diagnosis and/or treatment, problems can arise within this model. The high prevalence

of allergic disease requires greater awareness of the importance of allergy in organ-based practice. Ideally, this should be reflected in the training and CPD programmes developed by Royal Colleges for relevant medical specialties and for those surgically-based specialties, such as ENT, where allergy is particularly relevant.

Specialist allergy services

4.23 Patients with complex, severe, life-threatening or treatment-resistant allergic disease need specialist input into their assessment and management. In Scotland, as in other parts of the UK, such specialist expertise is restricted in terms of both capacity and accessibility. It is also apparently constrained by lack of prioritisation at Health Board level.

4.24 The way in which most allergy services are currently organised within primary care and organ-based secondary care can result in particular problems with “orphan” allergic disorders, for example:

- anaphylaxis arising through allergic or pseudoallergic mechanisms
- diagnostic dilemmas
- multisystem disease
- drug-resistant disease
- systemic disease including food, latex, drug and insect venom allergy
- circumstances where advice on rigorous allergen-avoidance is critical
- some occupational allergic disease
- cross-reactive allergen sensitivity
- allergy complicated by other disease co-morbidities
- disease which requires specialist expertise on diagnostic methodology/techniques or consideration of complex or new treatments (e.g. desensitisation and biological therapies)

4.25 In these circumstances there is a clear need for the specialist allergy service provider, operating within robust secondary and tertiary referral structures and providing outreach services where practical and cost-effective. Specialist services also have central roles in education, training, support, networking across primary care and organ-based specialist interfaces, and as advocates for allergy in local healthcare management structures. Published evidence supports the view that specialist involvement, direct or indirect, in allergy care is associated with better outcomes for patients. The commissioning and development of comprehensive, specialist secondary and tertiary services based in Regional Allergy Centres across the UK has been

proposed and strongly supported by the Royal College of Physicians, the British Society of Allergy & Clinical Immunology and the House of Commons Health Select Committee. Currently there are no unified and co-ordinated service arrangements in Scotland which would meet the concept of an Allergy Centre as defined.

4.26 Development of Regional Allergy Centres de novo or by expansion of existing services is needed but, given the low current national capacity for allergy service provision from specialist service providers, together with very low training numbers across the UK, this must realistically be an aim for the medium to long-term. In the interim, consideration needs to be given to optimising use of existing expertise and to developing alternative gateways to effective care at a level appropriate to individual need. This will require leadership and involvement from allergy-aware individuals from varying backgrounds with the interest, commitment and working capacity to drive this agenda and take forward a programme of service development and improvement in delivery.

Children's services

4.27 For the allergic child, optimal growth, educational attainment, and social and psychological development, as well as health and wellbeing, are all at risk. Children with allergic disease therefore have a set of needs which are distinct from those of adult allergic patients and which place particular importance on early recognition and effective management of allergy.

4.28 It is estimated that about 30% of children now suffer from allergies in Scotland, many with more than one allergic problem. While the majority of children affected can be managed in primary care or in a general paediatric setting, there is a significant group with severe, complex or multi-system allergic disease in whom care should optimally be delivered within an efficient, integrated and unitary specialist package rather than, as is currently the case for most affected individuals, within a relatively disjointed system structured around input from different specialist teams at different times.

4.29 Significant allergic disease in childhood requires care to be delivered by professionals who are trained and experienced in both caring for children and in the requirements of allergic disease in the setting of childhood. Earlier and proportionately greater involvement of hospital-based specialist allergy services is likely to be needed for childhood allergy than is required for adult allergic disease. This applies across the whole system of care but particularly in relation to the specialist paediatric allergist who has a central role in assessment, identification and management of complex allergic problems. Such individuals also, crucially, need skills in areas such as leadership; multidisciplinary team co-ordination; education; and cross-boundary linkage with primary care, community paediatric services and the school system.

4.30 Approximately 60% of Scottish schools now have one or more children known to be at risk of anaphylaxis. Many schools have resources and processes in place to recognise and respond appropriately to such events, but this is not the case across the system. Prevention strategies are generally poor and there is a perceived need in the majority of schools for guidelines on allergen avoidance policies, early recognition awareness, and emergency management protocols in the event of anaphylaxis occurring in the school environment.

4.31 There is clear national under-provision of specialist paediatric allergy services despite the high numbers of children affected by allergies. This has recently been identified for most parts of the UK by the 2007 House of Lords report. The paediatric allergy services currently available in Scotland are provided by paediatric specialists in respiratory medicine, gastroenterology, dermatology and in immunology/infectious diseases, by general paediatricians, general practitioners, nurses or dietitians involved in or interested in allergy. Properly organised cooperation between primary care and specialist providers is crucial if high quality and effective management of children with allergy is to be achieved. Unless this happens, outcomes for the affected child in terms of health, schooling and social life will be adversely affected.

FUTURE ALLERGY SERVICE PROVISION IN SCOTLAND

5.1 The preceding Chapters have identified a number of key barriers to the provision of high quality, equitable allergy services for both children and adults in Scotland. These include:

- Insufficient numbers of medical specialists and trainees in the system
- Insufficient numbers of other healthcare professional staff trained in allergy, including general practitioners, nurses, dietitians and pharmacists
- Lack of accessible information for healthcare professionals, patients, carers and the general public to support understanding of allergic disease and the place of self-directed care in symptom management
- A fragmented service with no clear linkages between primary, secondary and tertiary allergy care provision
- Need for better promulgation of evidence based practice eg patient referral protocols, care pathways for children and adults, and a standardised approach to clinical management
- Need for improved data collection and audit as tools to better healthcare planning and delivery
- Need for more research into allergy, particularly the underlying mechanisms

5.2 These issues all point to development of Allergy Managed Clinical Networks (MCNs) as a potential solution. HDL(2007)21 on “*Strengthening the role of Managed Clinical Networks*”¹⁰ emphasises the continuing important role MCNs play in implementing key health policies in Scotland, including direct involvement of patients and the voluntary sector in the future development of services. The HDL restates the core principles of MCN development. All of these are directly relevant to the problems of allergy service delivery highlighted in this report, perhaps most obviously the potential for Managed Clinical Networks to optimise existing resources, particularly manpower. Clinical leadership, coupled with strong links to NHS Boards planning and operational service delivery (including community planning) are crucial if MCNs are to be successful. Experience in other areas has shown that an effective MCN clinical leader, with the right level of NHS Board support, can act as a powerful champion of the clinical condition in question. MCNs can be potent levers for change, often resulting in a reordering of Health Board priorities. They act as an identifiable focal point for interaction with educational, quality assurance, research, data collection and health planning bodies (including medical schools, Quality Improvement Scotland, the Chief Scientist Office, Health Scotland, the Information Services Division of National Services Scotland and the Scottish Intercollegiate Guideline Network).

Adult Allergy

5.3 HDL(2007)21 describes various MCN models at local, regional and national level. Given the numbers of patients involved, and the level of existing resources, it seems likely that the establishment of regional MCNs would be the most appropriate model for improving the delivery of adult allergy services. MCNs should provide an authoritative voice for allergy and a mechanism for promulgating sustainable service change, identifying investment needs and leading a strategy for service improvement. Active local support and a robust infrastructure will be critical to the success of such MCNs.

5.4 The Working Group therefore strongly recommends that Regional Planning Groups give urgent consideration to the establishment of Regional Adult Allergy Managed Clinical Networks, perhaps piloting the concept in one region before rolling the model out across Scotland.

Paediatric Allergy

5.5 There is a perceived need amongst clinicians for a formal network of Allergy Centres in Scotland to provide specialist paediatric allergy services based in the 4 major teaching hospitals in Glasgow, Edinburgh, Aberdeen and Dundee. These Centres would lead clinical allergy services in their region, but also share their experience and expertise across Scotland.

5.6 A national Managed Clinical Network (MCN) in Paediatric Allergy would help to integrate service delivery through co-ordination of Regional Allergy Centres acting to:

- develop and consolidate effective, modern working practices at clinical service interfaces
- provide education, training and quality monitoring in paediatric aspects of allergy
- allow introduction of clinical diagnostic and treatment services not currently available in Scotland
- initiate development of appropriate transition services for adolescents linked to specialist adult allergy services

5.7 Allergy Centres would provide training, not only for the next generation of paediatric allergy specialists, but also for general paediatricians, general practitioners, nurses and dietitians interested and involved in allergy. In addition, a nationally-linked network of Allergy Centres would help to promote the potential of Scotland as a leading centre for paediatric allergy research, building on the already internationally-recognised allergy research reputation of Scottish health institutions and Universities.

5.8 As an initial step to promote service development in paediatric allergy in Scotland the Scottish Paediatric Allergy Group has recently been formed. This informal Group has members from all 4 Scottish regions, including paediatric allergists, consultant paediatricians, paediatricians in training, general practitioners, dietitians, nurses and allergy researchers. The Scottish Paediatric Allergy Group is open to all health professionals interested in paediatric allergy, to representatives of charities active in this field and to parents with children suffering from allergies. The aim of the Group is to encourage best clinical practice, identify service deficiencies, to contribute to continuous professional education and to promote service and research development in paediatric allergy. The senior members of the Scottish Paediatric Allergy Group have established excellent relationships with colleagues south of the border and throughout Europe, ensuring that paediatric allergy in Scotland will be engaged with, and a contributor to, new developments taking place in other parts of the UK and Europe. There is also clear potential for synergy between paediatric and adult MCNs in developing high quality, cross-system allergy care for the population of Scotland.

5.9 The Working Group strongly recommends that the Scottish Paediatric Allergy Group continues to develop its concept of future service delivery models and comes forward with concrete proposals for the establishment of a Managed Clinical Network at national level, linking Regional Paediatric Allergy Centres.

ALLERGIC REACTIONS TO ANAESTHETIC AGENTS

6.1 Anaesthesia-related allergic reactions are relatively rare but potentially fatal, particularly in relation to general anaesthesia, where quoted mortality rates are between 3-9%. Published estimates in non-UK populations have variously suggested that one reaction will occur in every 3500-20000 general anaesthetics. It has also been suggested that there may be 500-1000 serious allergic reactions related to general anaesthesia per year in the UK but the true incidence remains unknown. The Association of Anaesthetists of Great Britain and Ireland (AAGBI) is currently considering the development of a UK National Anaesthetic Anaphylaxis Database for web-based reporting and collation of data concerning serious anaesthetic allergic reactions. The 4th Edition of the Association's publication, *Suspected Anaphylactic Reactions Associated with Anaesthesia*, is currently in development¹¹.

6.2 Given current anaesthetic practice, peri-operative reactions occurring in the context of general anaesthesia will be confined to a hospital setting. However, adverse reactions to local anaesthetic agents can occur in either a primary care or hospital setting. These can frequently be significant in terms of local or systemic symptoms or signs, but rarely progress to the level of being life-threatening. The true incidence of adverse reactions to local anaesthetics is unknown. Evidence of an allergic basis for local anaesthetic reactions is rarely demonstrable and the majority of reactions are likely to have a vasovagal, neurotoxic or psychogenic basis, or be the result of accidental vascular administration. Some individuals may also have an idiosyncratic sensitivity to such agents, the mechanism of which is obscure. Adverse reactions can result either from sensitivity to the local anaesthetic agent itself or to preservatives and vasoconstrictor agents in compound formulations. Reactions to excipients may be responsible for apparent cross-sensitivity between different local anaesthetic preparations.

6.3 The complex circumstances of most general anaesthetic, and some local anaesthetic, reactions can pose difficult problems in the management of the acute situation; in subsequent investigation and diagnosis; and in avoidance of future problems. The differential diagnosis of problems arising during or related to anaesthesia is wide and separating allergic from other (e.g. primary disease-related or mechanical) causes of intra- or peri-operative problems is often not a straightforward process. Currently there is no validated or effective method of screening for, or predicting individual sensitivity to, anaesthetic agents.

6.4 The principle components of management comprise:

- Identification of individual patient risk factors prior to anaesthesia
- Recognition and treatment of acute reactions including differentiation of allergic reactions from other adverse peri-operative events (where possible)

- Performance of acute phase investigations
- Maintenance of an accurate anaesthetic record of any reaction
- Organisation and performance of subsequent relevant investigations
- Reaching a definitive diagnosis where possible
- Formal reporting of reactions through the “yellow card” scheme of the Medicines and Healthcare Products Regulatory Agency
- Establishment of measures aimed at long-term reduction or prevention of risk of future reactions

6.5 It is crucially important that factors responsible for adverse reactions to anaesthetic agents are identified, in order that harmful agents can then be avoided, but also to ensure that potentially useful or vital therapeutic agents are not withheld unnecessarily in the future.

6.6 The Working Group recommends that anaesthetic departments in Scotland consider ways of gathering information about anaesthetic reactions in their localities, which may then be collated and considered by their own national specialty bodies and by the relevant proposed Regional Adult Allergy MCN or National Paediatric Allergy MCN as appropriate.

SUMMARY OF RECOMMENDATIONS

Main Recommendations

- **The Working Group strongly recommends that Regional Planning Groups give urgent consideration to the establishment of Regional Adult Allergy Managed Clinical Networks, perhaps piloting the concept in one region before running the model out across Scotland (para 5.4).**
- **The Working Group strongly recommends that the Scottish Paediatric Allergy Group continues to develop its concept of future service delivery models and comes forward with concrete proposals for the establishment of a Managed Clinical Network at national level, linking Regional Paediatric Allergy Centres based in the 4 major paediatric teaching hospitals in Glasgow, Edinburgh, Aberdeen and Dundee (paras 5.5 and 5.9).**

Subsidiary Recommendations

Education and Training

Generic

- The proposed Managed Clinical Networks should define the education and training needs (both basic and advanced) of all staff involved in the delivery of allergy services, whether in primary/community care or in secondary care.
- Education and training needs assessments relevant to allergy should be submitted to relevant Regional Workforce Planning Groups for consideration and prioritisation through their joint Regional Planning Groups' forum.
- Regional Workforce Planning Groups should jointly consider, in conjunction with NHS Education for Scotland (NES), how best those education and training priorities can be met.
- NES should give consideration to how national allergy training programmes/modules should be developed for specific staff groups (e.g. general practitioners, dietitians, pharmacists), taking into account existing national opportunities from higher educational bodies, specialty professional organisations, Royal Colleges and the Skills for Health organisation.

Undergraduate Medical Training

- Scottish medical schools should review current allergy teaching at undergraduate level using existing tools, and consider whether there is a need to develop a more comprehensive integrated allergy theme throughout the undergraduate curriculum.

Postgraduate Medical Training

- Education about allergy, in all its common manifestations, should be a core mainstream component of training for all general practitioners, delivered through the new national training curriculum. NHS Education for Scotland (NES) and the Royal College of General Practitioners should jointly consider how this can be achieved.
- Relevant Royal College training programmes, particularly those administered by the Joint Royal Colleges of Physicians Postgraduate Training Board, should ensure that proper account has been taken of the importance of allergy training for future specialist practitioners, particularly those whose practice will involve allergy as a significant component.
- NES should consider, as a matter of urgency expansion, of existing immunology training numbers in Scotland to allow the development of increased capacity to deliver specialist services in the future. The creation of training numbers and programmes in allergy, both for adults and children, should also be considered.

Patient Information

- Managed Clinical Networks, once established, should give priority to developing high quality patient information which can be accessed in all areas of the Health Service where allergy treatment and advice are delivered. The involvement of patients and the voluntary sector in Managed Clinical Networks will help to deliver this recommendation.

Data

- The Working Group endorses the recommendation in the Report "*The Health Burden from Allergic Disease in Scotland: Analysis of National Datasets*" that consideration be given to setting up a long-term working group to address current problems with data collection, analysis and linkages, and believes that this would most appropriately be undertaken by the Information and Statistics Division (ISD) of NHS National Services (NSS).

Research

- Managed Clinical Networks should encourage and support ongoing multidisciplinary allergy research, with a particular emphasis on the deficiencies around information and knowledge identified in this report.
 - Reconfiguration of allergy services in Scotland into effective MCN structures creates an opportunity for the NHS to integrate with established academic groups and take a central role in leading international research strategies aimed at clarifying and understanding the scientific basis, clinical effects, social impact, incidence and national / international economic burden of allergy.

Clinical Guidelines

- The Scottish Intercollegiate Guideline Network (SIGN) should consider the potential for development of guidelines related to allergy, with particular initial focus on areas of specific concern such as anaphylaxis and food allergy.

Specialist Societies/Voluntary Sector

- Once established, the Managed Clinical Networks for both paediatric and adult allergy should give serious consideration to emerging recommendations from the British Society for Allergy and Clinical Immunology Primary Care Working Group (PCWG) and the Allergy UK Primary Care Allergy Network (PCAN).

Anaesthetic Allergy

- All NHS organisations delivering anaesthetic services, whether in primary or secondary care, should have in place a protocol and structure for management and investigation of suspected (or known) anaesthetic allergic reactions, including the acute phase and longer term effects. Such protocols could appropriately be developed, promoted and disseminated by the Managed Clinical Networks recommended in this report, in conjunction with anaesthetic departments and the Association of Anaesthetists of Great Britain and Ireland.
- Anaesthetic departments in Scotland should consider ways of gathering information about anaesthetic allergic reactions in their localities which may then be collated and considered by their own national speciality bodies and by the relevant proposed Regional Adult Allergy MCN or National Paediatric Allergy MCN as appropriate.

Future Review of Service Developments

- A stakeholder review of progress with implementing the recommendations in this report should be carried out 5 years from the date of publication.

Notes

ANNEX A

These statistics are derived from data collected on discharges from non-obstetric and non-psychiatric hospitals (SMR01) in Scotland

SMR01 records up to six diagnoses, the main diagnosis that is selected by the clinician responsible for the patient and up to five other diagnoses in the order specified by the clinician. The data presented are for diagnoses in any position.

Some of the cells in these tables contain small values (1-4). For the purposes of disclosure control these values have been replaced with an asterisk *.

- = Zero value

Source: SMR01 ISD Scotland

Reference: IR2008-00325

Date: 21 February 2008

Number of hospital admissions for selected allergic diagnoses for children (0 - 17 years) and adults (18 years and over); financial years 2004/05-2006/07

<u>DIAGNOSIS</u>	<u>FINANCIAL YEAR</u>					
	2004/05		2005/06		2006/07	
	Children	Adults	Children	Adults	Children	Adults
Allergic rhinitis / Hayfever	2,374	590	2,125	180	2,707	807
Asthma	3,007	20,373	3,163	31,707	6,471	34,311
Eczema / Atopic Dermatitis	750	1,426	1,067	1,470	1,307	1,016
Anaphylactic shock due to adverse food reaction	37	01	38	08	30	88
Food allergy	487	178	443	215	504	248
Drug allergy	03	024	40	370	02	377
Anaphylaxis	70	401	82	507	74	584
Urticaria	135	404	170	444	182	441
General Allergy	77	270	107	304	132	421

Please note that some codes can appear in more than one diagnosis.

Number of hospital admissions for selected allergic diagnoses by age group; financial years 2004/05-2006/07

<u>2004/05</u> <u>DIAGNOSIS</u>	<u>AGE GROUP</u>											
	0 - 2	03 - 6	07 - 12	13 - 17	18 - 27	28 - 37	38 - 47	48 - 57	58 - 67	68 - 77	78 - 87	88+
Allergic rhinitis / Hayfever	319	904	880	291	160	133	120	80	50	33	13	*
Asthma	729	1,747	1,691	1,442	2,881	3,239	4,577	4,668	4,777	4,800	2,952	699
Eczema / Atopic Dermatitis	397	267	178	114	190	176	241	218	199	213	136	55
Anaphylactic shock due to adverse food reaction	8	11	12	8	21	12	8	10	6	*	*	-
Food allergy	172	152	117	46	43	24	32	37	26	25	11	-
Drug allergy	35	7	6	17	28	48	75	123	106	144	79	21
Anaphylaxis	10	20	19	21	85	55	75	74	79	55	35	*
Urticaria	69	31	20	15	65	58	103	74	65	62	33	*
General Allergy	29	15	32	23	46	43	51	58	45	28	21	*

<u>2005/06</u> <u>DIAGNOSIS</u>	<u>AGE GROUP</u>											
	0 - 2	03 - 6	07 - 12	13 - 17	18 - 27	28 - 37	38 - 47	48 - 57	58 - 67	68 - 77	78 - 87	88+
Allergic rhinitis / Hayfever	402	897	1,000	426	231	144	157	82	84	60	22	*
Asthma	769	1,667	1,756	1,591	3,364	3,434	4,978	5,173	5,347	5,651	3,148	612
Eczema / Atopic Dermatitis	453	300	227	109	225	157	189	215	241	205	210	48
Anaphylactic shock due to adverse food reaction	15	9	6	8	22	12	*	14	8	5	*	*
Food allergy	181	123	90	49	44	27	29	33	31	27	19	5
Drug allergy	10	9	7	20	41	48	83	96	101	116	91	14
Anaphylaxis	24	15	18	25	73	67	80	82	89	61	52	5
Urticaria	81	33	35	21	47	55	104	56	83	45	46	8
General Allergy	44	21	25	19	35	52	58	47	52	38	18	*

<u>2006/07</u> <u>DIAGNOSIS</u>	<u>AGE GROUP</u>											
	0 - 2	03 - 6	07 - 12	13 - 17	18 - 27	28 - 37	38 - 47	48 - 57	58 - 67	68 - 77	78 - 87	88+
Allergic rhinitis / Hayfever	432	974	1,023	480	225	177	163	117	53	39	30	*
Asthma	945	1,933	1,931	1,682	3,737	3,810	5,478	5,475	5,569	6,067	3,594	781
Eczema / Atopic Dermatitis	510	387	313	159	215	158	201	269	245	265	202	63
Anaphylactic shock due to adverse food reaction	11	8	11	6	28	23	14	8	7	6	-	-
Food allergy	163	163	126	52	60	45	36	29	36	15	21	*
Drug allergy	32	9	11	10	36	46	88	81	123	108	89	26
Anaphylaxis	17	13	17	27	98	71	91	80	118	84	33	9
Urticaria	66	58	35	23	48	46	72	67	96	67	34	11
General Allergy	45	33	36	18	73	44	60	68	76	69	28	*

Number of hospital admissions with 1, 2, 3, 4+ diagnoses for selected allergic diagnoses; financial years 2004/05-2006/07

DIAGNOSES	FINANCIAL YEAR		
	2004/05	2005/06	2006/07
1	37,766	41,220	45,076
2	901	953	1,107
3	55	68	69
4+	4	2	1

Please note that the diagnoses are based on the ICD10 code rather than the diagnosis grouping so there is no double counting

Allergies¹

ANNEX B

Estimated number of patients seen by a GP in Scotland and annual prevalence rates per 1,000 population^{2,3,4} year ending March

Allergic Rhinitis

Age group	2003/2004		2004/2005		2005/2006		2006/2007	
	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate
Males								
0-2	550	6.9	450	5.8	450	5.2	550	6.4
3-6	2,150	18.3	1,750	15.2	2,050	18.6	2,350	21.6
7-12	6,050	31.2	4,700	24.4	6,050	32.1	4,350	23.6
13-17	5,500	32.6	3,150	18.4	4,550	26.7	4,000	23.7
18-27	7,150	20.6	4,300	12.1	5,900	16.3	5,550	15.1
28-37	5,050	12.3	3,850	9.5	4,100	10.5	4,250	11.0
38-47	3,250	7.7	2,200	5.1	3,050	7.0	2,450	5.6
48-57	2,100	5.9	1,750	4.8	1,800	4.9	1,750	4.9
58-67	1,650	6.4	1,250	4.7	1,750	6.2	1,800	6.2
68-77	1,300	7.2	1,200	6.7	850	4.6	1,000	5.4
78+	600	6.9	400	4.4	450	4.7	650	7.1
All ages⁵	35,450	13.5	24,950	9.4	30,950	11.6	28,750	10.8
Females								
0-2	500	6.5	300	3.7	350	4.7	500	6.6
3-6	1,550	14.0	1,150	10.7	1,300	12.1	1,200	11.4
7-12	4,850	26.0	3,250	17.7	3,750	20.8	3,500	19.9
13-17	5,900	36.9	3,750	23.3	4,650	28.7	4,150	25.7
18-27	10,000	29.6	6,800	19.7	8,800	24.9	8,800	24.4
28-37	7,900	20.2	5,700	14.9	7,200	19.5	6,950	19.1
38-47	5,300	13.1	3,900	9.4	4,250	10.1	3,800	9.0
48-57	3,350	9.7	2,850	8.1	2,800	8.0	2,850	8.1
58-67	2,550	9.2	2,150	7.6	1,750	6.0	2,000	6.7
68-77	1,450	6.4	1,400	6.1	1,500	6.5	1,800	7.8
78+	950	5.6	500	2.8	750	4.3	750	4.3
All ages⁵	44,350	16.4	31,700	11.7	37,050	13.6	36,300	13.3
Total⁵	79,800	15.0	56,600	10.6	68,000	12.7	65,050	12.1

Estimated number of patients seen by a GP in Scotland and annual prevalence rates per 1,000 population^{2,3,4} year ending March

All Asthma

		2003/2004		2004/2005		2005/2006		2006/2007	
Age group		Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate
Males	0-2	2,850	36.1	2,150	26.6	1,200	14.5	1,150	14.0
	3-6	5,550	47.0	5,350	46.9	4,500	40.6	3,950	35.9
	7-12	8,850	45.5	7,650	39.8	6,900	36.5	5,850	31.5
	13-17	4,650	27.6	4,650	27.1	3,950	23.1	3,350	19.6
	18-27	7,250	20.9	6,750	19.1	5,800	16.1	5,350	14.6
	28-37	7,250	17.6	7,450	18.4	5,750	14.6	5,550	14.3
	38-47	7,450	17.5	7,150	16.6	6,150	14.1	5,200	11.8
	48-57	5,400	15.1	5,700	15.8	4,750	13.3	4,250	11.8
	58-67	4,900	18.7	4,850	18.1	3,700	13.1	3,500	12.1
	68-77	3,450	19.3	3,450	18.9	2,500	13.5	2,150	11.5
	78+	1,100	12.7	1,050	11.5	700	7.5	900	9.6
	All ages ⁵	58,750	22.3	56,200	21.2	45,800	17.2	41,150	15.4
Females	0-2	1,300	17.0	900	12.0	850	11.1	700	8.8
	3-6	3,300	29.6	3,150	28.9	2,800	26.5	2,600	24.8
	7-12	5,500	29.5	5,450	29.7	4,200	23.4	3,800	21.5
	13-17	5,100	31.7	4,450	27.6	4,100	25.2	3,700	22.9
	18-27	11,450	33.8	11,550	33.5	9,500	27.0	8,700	24.2
	28-37	11,200	28.7	10,700	28.0	8,100	21.8	8,800	24.3
	38-47	11,000	27.1	11,600	28.1	9,150	21.9	8,950	21.3
	48-57	9,400	27.2	9,700	27.7	8,100	23.2	7,700	21.9
	58-67	7,700	27.7	7,600	26.8	7,300	24.8	6,300	21.0
	68-77	5,900	25.9	5,900	25.8	4,500	19.7	4,100	17.8
	78+	2,650	15.2	2,450	14.0	2,200	12.6	2,000	11.2
	All ages ⁵	74,500	27.6	73,450	27.1	60,800	22.4	57,350	21.1
	Total ⁵	133,250	25.0	129,650	24.2	106,600	19.8	98,500	18.3

Estimated number of patients seen by a GP in Scotland and annual prevalence rates per 1,000 population^{2,3,4} year ending March

Allergy

		2003/2004		2004/2005		2005/2006		2006/2007	
Agegroup		Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate
Males	0-2	450	5.5	650	7.8	350	4.2	450	5.2
	3-6	500	4.2	600	5.1	550	4.9	550	5.0
	7-12	1,050	5.3	850	4.3	750	3.9	550	3.0
	13-17	400	2.4	500	2.9	400	2.4	400	2.4
	18-27	650	1.9	800	2.2	550	1.5	550	1.6
	28-37	650	1.5	700	1.8	600	1.5	700	1.8
	38-47	750	1.8	650	1.5	550	1.2	500	1.1
	48-57	650	1.8	550	1.5	650	1.7	450	1.3
	58-67	700	2.7	650	2.4	600	2.1	600	2.1
	68-77	350	1.8	450	2.3	350	1.8	400	2.2
	78+	100	1.3	100	1.3	100	0.9	250	2.6
	All ages ⁵	6,200	2.4	6,350	2.4	5,350	2.0	5,450	2.0
Females	0-2	450	5.7	400	5.5	250	2.9	250	3.4
	3-6	750	6.8	500	4.5	650	6.2	550	5.1
	7-12	950	5.2	850	4.5	700	3.9	650	3.6
	13-17	650	4.2	600	3.6	850	5.2	450	2.6
	18-27	1,700	5.0	2,100	6.1	1,950	5.6	1,600	4.4
	28-37	2,200	5.6	1,600	4.2	1,800	4.8	1,500	4.1
	38-47	1,750	4.3	1,850	4.4	1,750	4.2	1,500	3.6
	48-57	1,900	5.5	1,850	5.3	1,700	4.9	1,600	4.5
	58-67	1,550	5.5	1,250	4.3	1,600	5.4	1,450	4.8
	68-77	1,000	4.3	850	3.7	950	4.1	800	3.4
	78+	450	2.5	450	2.5	300	1.8	300	1.7
	All ages ⁵	13,350	5.0	12,250	4.5	12,500	4.6	10,550	3.9
	Total ⁵	19,550	3.7	18,600	3.5	17,850	3.3	16,000	3.0

Estimated number of patients seen by a GP in Scotland and annual prevalence rates per 1,000 population^{2,3,4} year ending March

Allergic Intrinsic Eczema

		2003/2004		2004/2005		2005/2006		2006/2007	
Age group		Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate
Males	0-2	150	1.6	150	2.2	150	1.8	200	2.1
	3-6	50	0.5	50	0.4	100	0.9	200	1.9
	7-12	20	0.1	50	0.3	200	0.9	150	0.9
	13-17	10	0.1	50	0.4	20	0.1	50	0.4
	18-27	50	0.2	200	0.5	50	0.2	150	0.5
	28-37	100	0.2	100	0.2	200	0.5	100	0.3
	38-47	50	0.2	100	0.2	50	0.1	50	0.1
	48-57	150	0.4	20	0.0	50	0.1	50	0.1
	58-67	100	0.4	50	0.3	50	0.1	50	0.3
	68-77	0	0.0	20	0.1	20	0.1	100	0.5
	78+	50	0.4	50	0.6	0	0.0	100	1.0
	All ages ⁵		700	0.3	850	0.3	850	0.3	1,250
Females	0-2	200	2.5	150	2.0	100	1.5	150	1.6
	3-6	50	0.4	100	0.7	150	1.3	150	1.4
	7-12	150	0.7	200	1.0	200	1.0	50	0.2
	13-17	100	0.6	100	0.6	100	0.6	50	0.5
	18-27	150	0.5	200	0.5	300	0.9	200	0.6
	28-37	150	0.4	200	0.5	150	0.4	200	0.6
	38-47	100	0.2	100	0.2	150	0.3	150	0.3
	48-57	150	0.4	100	0.3	50	0.2	100	0.2
	58-67	50	0.2	100	0.3	50	0.2	150	0.5
	68-77	0	0.0	100	0.5	100	0.4	50	0.3
	78+	100	0.4	20	0.1	50	0.2	50	0.3
	All ages ⁵		1,100	0.4	1,300	0.5	1,400	0.5	1,300
Total ⁵		1,800	0.3	2,150	0.4	2,250	0.4	2,550	0.5

Estimated number of patients seen by a GP in Scotland and annual prevalence rates per 1,000 population^{2,3,4} year ending March

Food Allergy

		2003/2004		2004/2005		2005/2006		2006/2007	
Age group		Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate
Males	0-17	550	1.0	500	0.9	700	1.2	500	0.9
	18+	250	0.1	250	0.1	300	0.1	250	0.1
	All ages ⁵	850	0.3	750	0.3	950	0.4	750	0.3
Females	0-17	550	1.0	500	0.9	600	1.1	400	0.8
	18+	500	0.2	700	0.3	650	0.3	650	0.3
	All ages ⁵	1,050	0.4	1,200	0.4	1,250	0.5	1,100	0.4
Total ⁵		1,900	0.4	1,950	0.4	2,200	0.4	1,850	0.3

Drug Allergy

		2003/2004		2004/2005		2005/2006		2006/2007	
Age group		Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate
Males	0-17	200	0.4	250	0.4	100	0.2	250	0.5
	18+	2,150	1.0	2,200	1.1	1,750	0.8	1,950	0.9
	All ages ⁵	2,400	0.9	2,450	0.9	1,900	0.7	2,200	0.8
Females	0-17	400	0.7	250	0.4	200	0.4	200	0.4
	18+	4,800	2.2	5,300	2.4	4,500	2.0	4,600	2.1
	All ages ⁵	5,200	1.9	5,550	2.0	4,700	1.7	4,800	1.8
Total ⁵		7,600	1.4	8,000	1.5	6,550	1.2	7,050	1.3

Estimated number of patients seen by a GP in Scotland and annual prevalence rates per 1,000 population^{2,3,4} year ending March

Allergic contact dermatitis

		2003/2004		2004/2005		2005/2006		2006/2007	
Age group		Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate
Males	0-17	100	0.2	50	0.1	100	0.2	150	0.3
	18+	400	0.2	150	0.1	300	0.2	250	0.1
	All ages ⁵	500	0.2	200	0.1	400	0.2	400	0.2
Females	0-17	200	0.4	150	0.3	200	0.3	200	0.4
	18+	800	0.4	850	0.4	750	0.3	950	0.4
	All ages ⁵	1,000	0.4	1,000	0.4	900	0.3	1,150	0.4
Total ⁵		1,500	0.3	1,200	0.2	1,350	0.2	1,550	0.3

Allergic Asthma

		2003/2004		2004/2005		2005/2006		2006/2007	
Age group		Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate
Males	0-17	100	0.2	150	0.3	250	0.5	250	0.4
	18+	150	0.1	100	0.0	50	0.0	150	0.1
	All ages ⁵	250	0.1	250	0.1	350	0.1	400	0.2
Females	0-17	150	0.3	150	0.3	100	0.2	100	0.2
	18+	200	0.1	150	0.1	300	0.1	250	0.1
	All ages ⁵	400	0.1	300	0.1	400	0.1	350	0.1
Total ⁵		650	0.1	550	0.1	700	0.1	750	0.1

Estimated number of patients seen by a GP in Scotland and annual prevalence rates per 1,000 population^{2,3,4} year ending March

Angioneurotic oedema

		2003/2004		2004/2005		2005/2006		2006/2007	
Agegroup		Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate
Males	All ages	200	0.1	300	0.1	350	0.1	150	0.1
Females	All ages	200	0.1	300	0.1	350	0.1	450	0.2
Total ⁵		400	0.1	600	0.1	700	0.1	650	0.1

Anaphylaxis

		2003/2004		2004/2005		2005/2006		2006/2007	
Agegroup		Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate	Estimated number of patients ³	Patient rate
Males	All ages	150	0.1	100	0.0	250	0.1	100	0.0
Females	All ages	200	0.1	200	0.1	400	0.1	200	0.1
Total ⁵		350	0.1	300	0.1	650	0.1	300	0.1

1 - See sheet 'reads' for a list of the read codes used to define the allergies.

2 - Estimates are rounded to the nearest 50.

3 - Population Source: Community Health Index (CHI) as at 30th September 2004, 2005, 2006, 2007.

4 - Based on 45, 44, 44, and 45 PFI practices that submitted complete data for the years ending 31st March 2004, 2005, 2006 and 2007 respectively.

Figures are standardised by deprivation.

5 - Totals may not equal sum of parts due to rounding.

Read code	Description
<i>Allergic Rhinitis</i>	
H17..	Allergic rhinitis
H170.	Allergic rhinitis - pollens
H171.	Allerg.rhinit.-other allergens
H1710	Allergic rhinitis-unsp allerg
H172.	Allergic rhinitis due to unspecified allergen
H17z.	Allergic rhinitis NOS
H18..	Vasomotor rhinitis
Hyu20	[X]Other seasonal allergic rhinitis
Hyu21	[X]Other allergic rhinitis
Hyu22	[X]Other chronic sinusitis
<i>Allergic Asthma</i>	
H330.	Extrinsic asthma - no status
H3300	Extrinsic asthma NOS
H3301	Extrinsic asthma with status asthmaticus
H330z	Allergic (intrinsic) eczema
1780.	Aspirin induced asthma
<i>All Asthma</i>	
H33..	Asthma
H330.	Extrinsic (atopic) asthma
H3300	Extrinsic asthma - no status
H330z	Extrinsic asthma NOS
H331.	Intrinsic asthma
H3310	Intrinsic asthma - no status
H3311	Intrinsic asthma + status
H331z	Intrinsic asthma NOS
H332.	Mixed asthma
H333.	Acute exacerbation of asthma
H33z.	Asthma unspecified
H33z0	Status asthmaticus NOS
H33z1	Asthma attack
H33z2	Late-onset asthma
H33zz	Asthma NOS
173A.	Exercise induced asthma
<i>Urticaria</i>	
M28..	Idiopathic urticaria
M280.	Urticaria due to cold and heat
M281.	Cold urticaria
M282.	Thermal urticaria
M2820	Dermatographic urticaria
M2821	Vibratory urticaria
M282z	Cholinergic urticaria
M283.	Contact urticaria
M284.	Vibratory urticaria
M285.	Physical urticaria
M286.	Other specified urticaria
M287.	Urticaria persistans
M28y.	Other specified urticaria NOS
M28y0	Urticaria geographica
M28y1	Menstrual urticaria
M28y2	Urticaria persistans

Angioneurotic oedema

SN51. Angioneurotic Oedema

Anaphylaxis

SN50. Anaphyl shck/advers food react
SN500 Anaphylactic shock due to adverse food reaction
SN501 Angioneurotic oedema
SP34. Anaphylactic shock due to serum

Food allergy

SN58. Food allergy
SN580 Egg allergy
SN582 Peanut allergy
SN581 Egg protein allergy
SN583 Nut allergy

Drug allergy

SN52. Drug Hypersensitivity NOS
SN520 Scoline apnoea

Allergy

SN53. Allergy, unspecified
SN530 Allergic reaction
SN532 Allergic reaction to tattoo ink
SN531 Latex allergy
SN59. Allergic reaction to venom
SN590 Allergic reaction to bee sting
SN591 Allergic reaction to insect bite
SN592 Allergic reaction to wasp sting
SN593 Anaphylactic shock due to bee sting
SN594 Anaphylactic shock due to wasp sting

Allergic contact dermatitis

M128. Allerg contact derm due cosmet
M1280 Allerg cont derm, drug cont sk
M1281 Allrg con derm plants,exc food
M1282 Allergic contact dermatitis due to drugs in contact with the skin
M1283 Allergic contact dermatitis due to dyes
M1284 Allergic contact dermatitis due to other chemical products
M1285 Allergic contact dermatitis due to food in contact with the skin
M1286 Allergic urticaria

Allergic (intrinsic) eczema

M111. Atopic dermatitis/ eczema
M114. Allergic (intrinsic) eczema
M117. Neurodermatitis - atopic

Oral Allergy Syndrome

SN5A. Oral Allergy Syndrome

Scottish Executive Health Department

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Regent Road
Edinburgh EH1 3DG

[To Medical Directors, NHS Boards]

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Our ref: VLW/005/001

19th December 2005

Dear Colleague

SCOTTISH MEDICAL AND SCIENTIFIC ADVISORY COMMITTEE REVIEW OF ALLERGY SERVICES IN SCOTLAND

Over the last 20 years the incidence of allergic disease worldwide has increased dramatically and, as a result, allergy is now one of the major causes of illness in developed countries. The UK has amongst the highest defined rates of allergic disease in the world involving, conservatively, at least 30% of the population (or over 18 million people) at all ages and in all social and ethnic groups. Current evidence suggests that the problem of rising disease incidence is compounded by increasing disease severity and complexity in presentation, diagnosis and management. The picture in Scotland mirrors that in the rest of the UK and this burden of disease has major economic implications and health consequences for people in Scotland and for services operating within the framework of the NHS in Scotland.

Five years ago, a Working Group of the Scottish Medical and Scientific Advisory Committee, (SMASAC), which forms a part of the advisory structure of the Scottish Executive Health Department, published a report on *Immunology, and Allergy Services in Scotland* against a background of concern about existing service capacity and quality and significant growth trends in allergy and other immune-based disease. The report made a number of key recommendations to Health Boards for local implementation and incorporation within planning processes in regard to improving service structure and organisation. More recently, in England, reports from the Royal College of Physicians and the House of Commons Health Committee have also drawn attention to the serious deficiencies and inequalities that exist in the care of patients with allergy throughout the country. There is no doubt that current provision within the NHS is manifestly inadequate, is failing to meet the needs of the population and is the cause of significant and persistent patient dissatisfaction expressed at local and parliamentary levels.

The Scottish Executive is concerned to ensure that steps are being taken to address service deficiencies affecting this large group of patients across the whole of Scotland, as part of its enhanced emphasis on improving the care of patients with chronic diseases. It is particularly keen to strengthen and support the role of healthcare professionals in primary care but wishes to develop and re-emphasise updated recommendations which will operate robustly across the whole spectrum of service provision. To this end, it has set up a further Working Group, this time to look specifically at allergy services, with a view to providing a framework for action.

I am writing to you in my capacity as Chairman of this Working Group to seek your help and input in completing the attached questionnaire. The intention is to allow SMASAC to gauge the level of existing service provision across the country and, equally importantly, to gather information about attitudes to prioritising allergy service development and about plans being developed at a local level for improved delivery of allergy care. In completing the factual components of the questionnaire it will be necessary for you to consult with colleagues who are known to you as having a specific professional or managerial role in local allergy service provision in both primary care and hospital.

This will assist the Group in basing its recommendations, at least in part, on the observations and expertise of those who are working in the field. However, the Group is also centrally interested in professional and senior managerial views of allergy services, existing pressures on such services and related strategic and operational planning being undertaken at Health Board level. As a result, Medical Directors across Scotland are being asked to co-ordinate completion and return of this information to SMASAC. The Group has tried to make the questionnaire as user-friendly as possible, in order that, with input from relevant local colleagues, it should be simple and rapid to complete. There is space at the end of each section of the questionnaire should you wish to include any further information which is not covered in the questions.

I would be grateful if you would return the questionnaire by e-mail or post by no later than **Monday 30 January 2006** to Neil Leadbeater, administrative secretary to the Working Group. His postal and e-mail addresses may be found at the end of the questionnaire.

Thank you very much in advance for your invaluable assistance in this important process.

Yours Sincerely

A handwritten signature in cursive script, appearing to read 'Richard Herriot', written in a light grey or blue ink.

RICHARD HERRIOT

Consultant Immunologist / Chairman, SMASAC Allergy Services Review Working Group.

SCOTTISH HEALTH BOARDS ALLERGY SURVEY (Questionnaire)

**SCOTTISH EXECUTIVE HEALTH DEPARTMENT
SCOTTISH MEDICAL AND SCIENTIFIC ADVISORY COMMITTEE**

REVIEW OF ALLERGY SERVICES IN SCOTLAND

**QUESTIONNAIRE IN THREE PARTS
ADDRESSED TO MEDICAL DIRECTORS OF NHS BOARDS IN SCOTLAND**

PART ONE

	High	Medium	Low	Don't Know
What priority does your NHS Board place on the provision of services for patients with allergy?				

	Adequate	Inadequate	Don't Know
To what extent do you think that the provision of services for patients with allergy is adequate in your NHS Board area?			

Do you agree or disagree with the following statements?

	Agree	Disagree	Don't Know
There is a lack of knowledge about allergy and its management in primary care			
There is a general reluctance to refer patients to a specialist			
There are unacceptable waiting times in some areas due to inappropriate referral			
There are inadequate opportunities for referral and follow-up appointments with an allergy specialist			
There is no lack of specialist allergy services for patients to be referred to			
There is a lack of training for support networks (family, carers, school staff, first-aiders, etc.).			

Do you agree or disagree with the following statements?

Allergy services could be improved if...

	Agree	Disagree	Don't Know
There were more GPs with a special interest in allergy			
There were more specialist nurses and nurse-led clinics			
There was improved support to services delivered in primary care and the community, e.g. specialist dietitians			
There was education and training of all primary care staff			

in the diagnosis and management of common allergies			
There was enhanced, focused education and training for identified, key primary care staff in the diagnosis and management of difficult allergic problems			
	<u>Agree</u>	<u>Disagree</u>	Don't Know
There was a tiered approach to service provision			
Facilities for allergy diagnosis (e.g. skin testing) in a primary care setting were developed			
There were agreed referral protocols in place between primary, and secondary / tertiary care			
Hospital organ-based specialists (non-allergy specialists) generally took increased responsibility for, and interest in, management of allergy problems			
The NHS Board identified a named individual to oversee and co-ordinate allergy services in your area.			

To what extent do you think that allergy services are driven by....

	Greatly	Partly	Not at all	Don't Know
Patient demand				
The media				
An increase in the prevalence of allergy				

What is the single biggest obstacle that impedes the delivery of allergy services in your area?

Convincing the NHS Board that allergy services should be given a higher priority	
The education and training of healthcare professionals	
The education and training of patients	
Other (please specify)	

Space for Free Text:

Please continue on a separate sheet of paper if necessary.

PART TWO

PRIMARY CARE – BASED SERVICES

- 1) Is there evidence of / perception of significant problems in allergy service provision at a Primary Care level (i.e. not including problems around access to secondary / tertiary care specialist services)? YES / NO
- 2) If yes, how are these problems manifest?
 - a) inadequate capacity to adequately cater for clinical demand YES / NO
 - b) gaps in knowledge, learning and skills underpinning current practice YES / NO
- 3) Are there any current mechanisms for provision of specialist Allergy services at a Primary Care level (e.g. GPs with a Specialist Interest, GP-to-GP referral clinics, Other mechanisms)? YES / NO
If YES, please specify here.....
- 4) Are there any existing management responsibilities for Allergy service provision at a Primary Care level (e.g. Clinical Lead, CHP lead)? YES / NO
- 5) Are you aware of any defined specialist Allergy service for adults in your local hospital(s)? YES / NO
- 6) Are you aware of any defined specialist Allergy service for children in your local hospital(s)? YES / NO
- 7) Are general Allergy referrals from Primary Care to hospital primarily made to:
(select most appropriate response from options available, delete YES for two stems and leave answer YES to one response ONLY)
 - a) organ-based specialties (e.g. ENT, Dermatology) where disease is largely confined to particular tissues or organs (nose, skin etc.) YES / NO
 - b) a defined hospital specialist ‘Allergy’ service to which most/all Allergy referrals are made YES / NO
 - c) a combination of a) and b) YES / NO
- 8) Are referral mechanisms comprehensive (encompassing all allergic disorders) YES / NO
- 9) Are there robust, easily accessible mechanisms for referral of problematic, non-organ based allergic disorders (e.g. anaphylaxis, food allergy, drug allergy, local/general anaesthetic adverse reactions, multi-system allergy, pseudo-allergic disorders) to:
(select most appropriate response from options available and answer YES to one ONLY) :
 - a) an organ-based hospital specialty (e.g. Dermatology)? YES / NO
(please indicate relevant specialty/specialties here.....)
 - b) another specialty providing defined ‘Allergy’ services (e.g. Immunology)? YES / NO
(please indicate relevant specialty/specialties here.....)
 - c) there is no robust, local, easily accessible facility for such case referral YES / NO
- 10) Are referral mechanisms and the level of hospital service provision which is available generally adequate for?:
 - a) organ-based/confined allergic disorders YES / NO
 - b) non-organ confined allergic disorders (see 8) above) YES / NO

- 11) If problems exist with allergy service provision do these manifest as:
- a) lack of access to services generally YES / NO
 - b) lack of access to specific services / services for a focal range of problems (e.g. non-organ confined allergic conditions, desensitisation therapy) YES / NO
 - c) prolonged out patient clinic waiting times where access is available YES / NO
 - d) lack of access to telephone/remote/written advice as required YES / NO
- 12) Is access to in-vitro Allergy testing (principally specific IgE tests) from NHS diagnostic laboratory services uniform and comprehensive across the whole of the local Primary Care sector? YES / NO
- 13) Is there a need or desire to develop allergy investigation / diagnostic facilities (e.g. skin prick testing) in primary care? YES / NO
- 14) Are there local opportunities currently available for formal allergy training of staff in primary care? YES / NO
- 15) Are there mechanisms in place for staff in primary care to access formal allergy training / education (day/residential courses, in-house training, distance learning, workshops, clinic attendance, case analyses and discussion, diploma courses etc.)? YES / NO
- 16) To your knowledge, is there significant local interest in developing allergy service provision within the primary care setting beyond current levels? YES / NO
- 17) Do you see allergy as a major problem issue in primary care? YES / NO
- 18) Have you ever undertaken a needs assessment in relation to allergy service provision in primary care in your area? YES / NO
- 19). Is allergy workload data in primary care collected in your area or do you contribute to any cross-boundary data collection processes? YES / NO

If YES, please specify what data are collected here (e.g. all allergy workload asthma workload only, urticaria only, food allergy only, etc.).....

Space for further comments on allergy service provision:

PART THREE

HOSPITAL – BASED SERVICES

1) Does your hospital provide, within its range of services, a defined specialist ‘Allergy’ service to which patients with a broad range of non-organ based allergic problems may be referred for long term investigation, diagnosis and management (such problems may include anaphylaxis, food allergy, drug allergy, local/general anaesthetic adverse reactions, multi-system allergy, pseudo-allergic disorders). This question does not relate to mechanisms by which acute, life-threatening allergic events are managed within the local healthcare environment.

YES / NO

2) Does this service accept referrals from:

a) local Primary Care practitioners

YES / NO / NA

b) local Hospital practitioners

YES / NO / NA

c) cross-boundary practitioners (Primary Care or Hospital)

YES / NO / NA

3) If ‘YES’ to 2c above, is there defined and identifiable resourcing input to the service which is associated with cross-boundary activity?

YES / NO

4) Are there Consultant medical programmed / extra programmed activities for provision of Allergy services for:

a) adults

YES / NO

b) children

YES / NO

5) Is there defined and resourced specialist nursing input to Allergy service provision for:

a) adults

YES / NO

b) children

YES / NO

6) Is there defined and resourced specialist dietetic input to Allergy service provision for:

a) adults

YES / NO

b) children

YES / NO

7) Does your hospital provide all of the services listed below for adults with allergy (these comprise current criteria for definition of a specialist allergy service):

YES / NO

If NO, please indicate which ones it does / does not provide:

- diagnosis and treatment of patients with allergic disease

YES / NO

- provision of skin testing facilities

YES / NO

- facilities for allergen challenge testing

YES / NO

- facilities for immunotherapy

YES / NO

- facilities for diagnosis of general anaesthetic allergic reactions

YES / NO

- facilities for diagnosis of local anaesthetic allergic reactions

YES / NO

- a system for investigation and management of anaphylaxis

YES / NO

- diagnosis, investigation and management of drug reactions

YES / NO

- diagnosis and management of latex rubber allergy

YES / NO

- expertise in the diagnosis and management of asthma, rhinitis, eczema, angioedema and urticaria

YES / NO

- advice on allergen avoidance (verbal and written)

YES / NO

- advice on dietary manipulation for suspected food allergy/intolerance

YES / NO

- access to an Immunology laboratory service

YES / NO

- access to inpatient facilities

YES / NO

- access to consultant advice in related specialist services (e.g. ENT, respiratory medicine, dermatology, gastroenterology, anaesthetics)

YES / NO

- education and teaching in allergy for other healthcare staff

YES / NO

8) Does your hospital also provide the same services that you have indicated in (7) for children with Allergy YES / NO

In addition, does it also include:

- a system of co-ordination via a community paediatric team for management of children at risk of anaphylaxis in schools YES / NO
- appropriate facilities for investigation and management of children with allergic disease YES / NO

9) Does your hospital provide a service for the investigation of possible allergic reactions to local and general anaesthetic agents? YES / NO

10) Is there evidence of / perception of significant problems with hospital-based allergy service provision? YES / NO

- 11) If YES to 10) above, do these problems manifest as:
- a) prolonged outpatient clinic waiting times YES / NO
 - b) services available are not comprehensive YES / NO
 - c) other (please outline here) YES / NO

12) Is access (direct or indirect) through your laboratory to in-vitro allergy testing (principally specific IgE tests) uniform and comprehensive across the whole of the hospital? YES / NO

Space for further comments on allergy service provision

Name:..... NHS Board

Please return this questionnaire by e-mail or post no later than 30 January 2006 to:

neil.leadbeater@scotland.gsi.gov.uk

or

Neil Leadbeater
Health Planning & Quality Division, Ground Floor East Rear, Scottish Executive Health Department,
Regent Road, Edinburgh EH1 3DG.

RESPONDENTS TO ALLERGY SURVEY QUESTIONNAIRE

Dr. R. Beattie	Medical Director, NHS Orkney
Dr. G. Birnie	Medical Director, NHS Fife Operational Division
Dr. L. Bissett	Clinical Lead (Kirkcaldy and Levenmouth)
Dr. M. Bisset	Clinical Group Co-ordinator, Royal Aberdeen Childrens' Hospital
Dr. J. Browning	Medical Director, NHS Lanarkshire
Dr. A. Cameron	Medical Director, NHS Dumfries & Galloway
Dr. R. Cameron	Medical Director, NHS Borders
Dr. B. Cowan	Medical Director, NHS Greater Glasgow, South Glasgow Operating Division
Dr. G. Davies	Medical Director, NHS Forth Valley
Dr. A. Graham	Medical Director, NHS Highland
Ms. J. Grant	Acting Chief Executive, NHS Greater Glasgow, North Glasgow Operating Division
Ms. A. Harkness	General Manager of Medicine, NHS Greater Glasgow South Glasgow Operating Division
Dr. A. Kilpatrick	Clinical Lead (Glenrothes and North East Fife)
Dr. G. Lowe	Consultant Dermatologist, NHS Tayside
Dr. R. Masterton	Medical Director, NHS Ayrshire & Arran
Dr. D. McColl	Consultant in Dental Public Health, NHS Greater Glasgow
Ms. M. McEwan	Executive Assistant, Merchiston Hospital, NHS Argyll & Clyde
Dr. B. Michie	Medical Director, Community Services, NHS Western Isles
Dr. J. Nugent	General Practitioner, Primary Care Division, NHS Greater Glasgow
Dr. G. Robson	Clinical Lead (Dunfermline and West Fife)
Dr. P. Strachan	Associate Medical Director, NHS Grampian
Dr. C. Swainson	Medical Director, NHS Lothian
Dr. Ali Siad Assa'd Taha	Consultant Gastroenterologist, Crosshouse Hospital, Kilmarnock
Dr. J. Vestey	Head of Service (Dermatology), NHS Highland
Prof. J. Wildsmith	Professor of Anaesthetics, Ninewells hospital, Dundee

Results of Survey

Part One – General Conclusions

- *Only one NHS Board places a high subjective priority on the provision of services for patients with allergy. This finding is supported by information previously obtained during an informal survey of Health Board responses to the publication of Immunology and Allergy Services in Scotland by the Scottish Executive in 2000 (Brian Adam MSP, personal communication, 2002).*
- *The majority of Boards report that service provision is generally inadequate, particularly where allergy services are deemed to be a low priority*
- *There is a perceived lack of knowledge about allergy and its management in primary care.*
- *There is some reluctance on the part of general practitioners to refer allergy patients to a specialist.*
- *There are unacceptable waiting times in some areas but not within the large conurbations in the central belt.*
- *With very few exceptions, there are inadequate opportunities for referral and follow-up appointments with an allergy specialist despite the fact that all respondents are of the view that there is no lack of specialist allergy services.*
- *There is a strong view that there is a lack of training for support networks (family, carers, school staff, first-aiders etc.).*
- *There is a widely held view that allergy services could be improved if there were more general practitioners with a special interest in allergy and more specialist nurses and nurse-led clinics.*
- *There is almost total agreement that allergy services could be improved if specialist dietitians could deliver support services in primary care and community settings.*
- *There is strong support for the view that allergy services could be improved through the education and training of all primary care staff in the diagnosis and management of common allergies with focused training in the diagnosis and management of difficult or complex allergic problems.*
- *There is general support for a tiered approach to allergy service provision.*
- *There is general support for facilities for allergy diagnosis (e.g. appropriate skin testing) to be developed in primary care.*
- *With the exception of one Board, there is complete agreement on the need for referral protocols to be developed and put in place between primary and secondary / tertiary care.*
- *Opinion is evenly divided about whether or not allergy services could be improved if hospital organ-based specialists took increased responsibility for, and interest in, the management of allergic problems.*
- *Three-quarters of respondents are of the view that it would be helpful if NHS Boards could identify a named individual to oversee and co-ordinate allergy services in their area.*
- *Respondents were generally of the opinion that the call for better allergy services is driven primarily by patient demand and, to a lesser extent, by the media rather than an increase in allergy prevalence or unmet need for services.*
- *The biggest single obstacle impeding allergy service delivery was deemed to be the level of local prioritisation. Other factors noted were education and training of healthcare staff, education and training of patients, knowledge of the current*

availability of local services and access to specialist care resulting from geographical remoteness.

- *Additional free text comments supplied indicate uncertainties as to the burden of allergic disease, public perception of allergic disease and the utility of specialist services with potential solutions in development of local / regional / national networks, provision of information and education via robust and effective Information Technology structures and education at a primary care level.*

Part Two – Primary Care-Based Services

- *Opinion is evenly divided over whether there or not there is evidence of, or any perception of, significant problems in allergy service provision at a primary care level. No discernible pattern emerged in terms of geography or urban / rural mix.*
- *There is broad recognition of gaps in knowledge and skills underpinning clinical practice relevant to allergy.*
- *There are no current mechanisms for provision of advanced or specialist services at a primary care level.*
- *With two exceptions (Greater Glasgow and Tayside) there is no Clinical Lead or CHP Lead with existing management responsibility for allergy services at primary care level.*
- *Only three respondents (Grampian, Greater Glasgow and Tayside) are aware of any defined specialist allergy service for adults in their local hospitals.*
- *Only four respondents (Fife - Glenrothes & North East Fife, Greater Glasgow, Tayside and Western Isles) are aware of any defined specialist allergy service for children in their local hospitals*
- *The majority of general allergy referrals are made to organ-based specialties where disease is largely confined to particular tissues or organs. In Greater Glasgow most referrals are made to a specialist allergy service. In four other Boards referrals are made to a combination of organ-based services and defined specialist allergy services*
- *With two exceptions (Tayside and Fife-Glenrothes and North East Fife) there are no comprehensive referral mechanisms encompassing all allergic disorders in place.*
- *Half of all respondents indicate there are robust, accessible mechanisms in place for referral of problematic, non organ-based allergic disorders.*
- *Three quarters of respondents consider that referral mechanisms and the level of hospital service provision is adequate for organ-based allergic disorders but only three respondents consider that they are adequate for non organ-based allergic disorders.*
- *Lack of access to specialist services, prolonged outpatient clinic waiting times and lack of access to advice were particularly noted in Argyll & Clyde, Dumfries & Galloway and Grampian.*
- *Uniform and comprehensive access from primary care to in-vitro allergy testing from NHS diagnostic laboratories is available in the majority of Boards.*
- *Opinion is evenly divided as to a need or desire to develop appropriate allergy investigation / diagnostic facility (e.g. focused skin testing) in primary care.*
- *None of the respondents indicated that opportunities were available for primary care staff to receive formal training in allergy.*
- *With one exception (Borders), none of the respondents indicated that they have established mechanisms in place for primary care staff to access formal allergy*

training / education (day / residential courses, in-house, distance learning, workshops, clinic attendance, case analysis and discussion, diploma courses).

- *Only two Boards indicated any significant local interest in developing allergy service provision within the primary care setting beyond current levels.*
- *Only three respondents view allergy as a major problem in primary care.*
- *None of the responding Boards has undertaken a needs assessment in relation to allergy service provision in primary care in their area.*
- *Primary care allergy workload data is not collected in any Board and there are no relevant contributions to any cross-boundary data collection processes (with the exception of one Board which collects general information regarding out of area referrals).*
- *Additional free text comments from four respondents supplied showed significant divergence of opinion. One felt that high levels of patient demand for specialist referral was frequently inappropriate and that the appropriate caseload level for serious allergic disorders should be manageable within a conventional organ-based secondary care structure. Two respondents indicated that there was no agreement at a local level for prioritisation of allergy services, though one of these suggested that, were development to take place, this should be preferentially targeted at the care of patients with serious disorders. One Board advanced strong support for development of nurse-led services in primary care and improved awareness and knowledge of allergic disease in primary care professionals along with better access to clear information regarding allergy referral and management.*

Part Three – Hospital-Based Services

- *Only hospitals in Grampian, Greater Glasgow and Tayside provide a defined specialist allergy service which incorporates elements for diagnosis and management of patients with non organ-based allergic disease. These services take referrals from local primary care and hospital practitioners. The situation with regard to acceptance of cross-boundary referrals is unclear.*
- *Only one NHS Board (Greater Glasgow) has a defined, identifiable input of resource to the service which is associated with cross-boundary activity.*
- *Four NHS Boards have activities incorporated into Consultant job plans for provision of allergy services to adults.*
- *Three NHS Boards have activities incorporated into Consultant Job Plans for provision of allergy services to children.*
- *Three NHS Boards have a defined and resourced specialist nursing input to allergy service provision for adults.*
- *One NHS Board has a defined and resourced specialist nursing input to allergy service provision for children.*
- *Three NHS Boards have defined and resourced specialist dietetic input to allergy service provision for both adults and for children. Two other Boards have services directed solely at either adults or children.*
- *No hospitals provide a comprehensive range of services consistent with those of a specialist allergy service provider (as defined by the Department of Health in England). The breakdown of services from respondent centres is detailed in the table below (n=12).*

Components of specialist allergy service (availability)	Availability
Provision of skin testing facilities	12
Access to an immunology laboratory service	12
Access to consultant advice in related specialist services (e.g. ENT, respiratory medicine, dermatology, gastroenterology, anaesthetics)	12
Expertise in the diagnosis and management of asthma, rhinitis, eczema, angioedema and urticaria	10
Advice on dietary manipulation for suspected food allergy / intolerance	10
Facilities for the diagnosis of general anaesthetic allergic reactions	9
A system for the investigation and management of anaphylaxis	9
Advice on allergen avoidance (verbal and written)	9
Diagnosis and treatment of patients with allergic disease	8
Diagnosis and management of latex rubber allergy	8
Education and teaching in allergy for other healthcare staff	8
Facilities for allergen challenge testing	6
Facilities for the diagnosis of local anaesthetic allergic reactions	6
Access to inpatient facilities	6
Diagnosis, investigation and management of drug reactions	5
Facilities for immunotherapy	3

Adapted from: Specialised services national Definition Set: 17 Specialised Services for Allergy (all ages), Department of Health, 2002

- *Six of the respondents indicated that their hospitals also provide the same services for children as they do for adults with, additionally, appropriate facilities for investigation and management of paediatric allergy and a system for co-ordinating care of children at risk of anaphylaxis through a community paediatric team.*
- *Eight respondents state their hospitals provide a service for investigation and management of possible allergic reactions to local and general anaesthetic agents.*
- *With the exception of three Boards, respondents indicated that there is evidence of / a perception of significant problems in hospital-based allergy service provision. In most cases the services available were not regarded as being comprehensive as a result of restricted capacity and access to outpatient clinics, sub-optimal specialist follow-up and disease monitoring, poor capacity for single point / integrated care of multi-system disease, underdeveloped systems for access to information for patients and healthcare staff and inadequate nursing and dietetic support.*
- *With the exception of one NHS Board, access to in-vitro allergy testing was regarded as uniform and comprehensive across the whole of the hospital service.*

Additional free text comments from individual respondents indicated inadequacies for both adults and children in service capacity and repertoire within and, by referral, across Health Board areas, rudimentary and fragmented service structures, evidence of patient dissatisfaction, low prioritisation of service activities and service development, inability to meet public expectation and a lack of adequate information and education programmes for patients.

WEST OF SCOTLAND ANAPHYLAXIS SERVICE REFERRAL PROTOCOL



THE WEST OF SCOTLAND ANAPHYLAXIS SERVICE

Consultant in Administrative Charge : Dr. Evelyne M. Kirkwood

GENERAL INFORMATION

Update: FEBRUARY 2007

A WAITING TIME INFORMATION

The approximate waiting times at present are:

(See details of categories overleaf)

- **Category 1a** 6 weeks
- **Category 1b** 6 weeks
- **Category 2a** 6 weeks
- **Category 2b** 6 weeks
- **Category 3** 18 weeks
- **Category 4** Referrals not formerly accepted. However, I am now in a position to discuss patients within Category 4. If the patient's problem cannot be resolved in this way I may be able to appoint the patient to the clinic as long as the waiting times for Categories 1-3 remain less than 18 weeks and keep in a downward direction. If you want to use this service, please write to me at the address below giving full details of the patient's problem and indicating that the patient is in Category 4 and should not be considered for direct referral initially.
- **Category 5** Referrals not accepted.
- **Category 6** Referrals not accepted.

B CANCELLATION SLOTS

When patients cancel clinic appointments it is often on the day before their appointment and this can lead to a lengthening of waiting times in general. We may be able to appoint other patients very quickly into these cancellation slots if they are in a position to attend the clinic at very short notice. We often have no easy way of contacting them quickly.

If you already have patients on the waiting list who are willing to attend at short notice, you may want to complete the contact information form (enclosed) and return it to me. This form (or photocopies) can also be used along with any new patient referral you may have in the future.

I am hopeful that providing this information with new referrals will help shorten the waiting times for Category 3b patients further.

C CONTACT INFORMATION

Dr. Eve Kirkwood Senior Lecturer & Honorary Consultant West of Scotland Anaphylaxis Service Administration Building Western Infirmary GLASGOW G11 6NT Tel: 0141 211 2467	Mrs. Jackie Kerrigan Secretary to Dr. Kirkwood West of Scotland Anaphylaxis Service Administration Building Western Infirmary GLASGOW G11 6NT Tel: 0141 211 1823
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.....Please detach and send in enclosed envelope.....

PATIENT CONTACT INFORMATION

The patient below has been referred to you at the West of Scotland Anaphylaxis Clinic and has agreed that they might be able to attend the clinic at very short notice if a cancellation slot is available.

PATIENTS NAME:		Daytime telephone:	
ADDRESS:		Evening telephone:	
		Mobile:	
		E-mail:	
DATE OF BIRTH:		Fax:	
PLEASE TICK AS REQUIRED			
Notice required	Same day		
	Day before		
	Two days before		
	Other (please state)		

Signed:

Date:

NEW REFERRAL CATEGORIES

Future referrals to this clinic will be restricted to referrals of patients in Categories 1, 2 and 3. Any referrals outwith these categories will be returned, as will any referrals from outwith The West of Scotland Health Boards, and referrals regarding children, unless the referral is from a consultant paediatrician.

CATEGORY 1a “Near Fatal”

1. Full cardio-pulmonary resuscitation following anaphylaxis from any cause.
2. Admitted to Intensive Care Unit following anaphylaxis from any cause.

CATEGORY 1b “Loss of consciousness”

1. Where consciousness has been lost during the course of an event **strongly suspected as being allergic in nature.**
2. Clear vasovagal symptoms and low blood pressure during the course of an event **strongly suspected as being allergic in nature.**

Patients will be accepted with these symptoms whether or not treatment was received for the condition. Category 1a and 1b patients will be seen at the clinic as soon as possible.

CATEGORY 2a “General Anaesthesia”

1. Anaphylaxis during **general** anaesthesia. Operative procedure abandoned. Referral from anaesthetist.
2. Anaphylaxis during **general** anaesthesia. Operative procedure completed, but further surgery using general anaesthesia required in the very near future. Referral from anaesthetist.

Patients in these two categories above from any Health Board will be accepted in the meantime.

CATEGORY 2b “Future Surgical Risk”

Only patients from Health Boards who fund this service (West of Scotland Health Boards) will be accepted.

1. Anaphylaxis or severe allergic symptoms during anaesthesia. Operation completed.
2. Anaphylaxis or severe allergic symptoms thought to be due to IgE mediated latex allergy.

CATEGORY 3a “Moderate Resuscitation – Exercise Induced”

Only patients from Health Boards who fund this service (West of Scotland Health Boards) will be accepted.

1. These patients have symptoms of the same clinical severity as Category 3b patients, but exercise seems to have precipitated their reaction.

CATEGORY 3b “Moderate Resuscitation”

Only patients from Health Boards who fund this service (West of Scotland Health Boards) will be accepted.

1. At least one allergic reaction severe enough to require intravenous therapy and overnight admission.
2. Frequent visits to an Accident and Emergency Department requiring parenteral therapy, but not necessarily admission.
3. Systemic symptoms treated parenterally by GP or other community doctor by adrenaline and/or hydrocortisone and/or antihistamine, or a single visit to an Accident and Emergency Department requiring parenteral therapy, but not necessarily admission.
4. Continuing attacks requiring patient to use rescue medication with adrenaline.

5. Any patient with any severity of symptoms of IgE mediated latex allergy (not rubber dermatitis), not severe enough to come into Category 1 or 2. Fresh fruit allergy may be related to latex allergy so these patients also will be seen.
6. Hypotensive episode strongly suspected of being allergic in nature.

CATEGORY 3 PATIENTS WITH ANGIOEDEMA INVOLVING THE MOUTH AND THROAT

Before referring patients with angioedema involving the mouth and throat with or without urticaria but with no other systemic symptoms, where possible consider:

1. Observing the effect of stopping or replacing all groups of medications that are well known to be associated with urticaria alone, urticaria/angioedema, and angioedema ie ACE INHIBITORS, ASPIRIN, NON-STEROIDAL ANTI-INFLAMMATORY DRUGS, OPIATES, INCLUDING A WIDE RANGE OF OVER THE COUNTER PREPARATIONS WHICH CONTAIN SALICYLATES AND CODEINE.
2. Excluding in patients with angioedema without urticaria the rare condition, C1 inhibitor deficiency (clotted blood and EDTA blood samples to Clinical Immunology laboratory). This condition is sometimes associated with bouts of severe abdominal pain.

Patients in categories 4, 5 and 6 should not be referred to The West of Scotland Anaphylaxis Service regardless of their catchment area.

CATEGORY 4 “Other High Risk”

1. Allergic reaction where there was swelling of the mouth or throat, which recovered without treatment.
2. Allergic reaction which demonstrated a systemic component, but which responded without treatment.
3. Patient carries adrenaline but has never used it.

CATEGORY 5 “Potentially Severe”

1. Minor reactions to very small amounts of allergen.
2. Patient has not had life-threatening allergy, but is very concerned that severe symptoms may occur.
3. Patient referred for investigation of suspected drug allergy, when the drug concerned could be avoided.

CATEGORY 6 “Mild to Moderate Allergy, or Doubtful Allergy”

1. Patients suffering from common allergic symptoms such as asthma, hay fever or eczema, or patients with allergies who require or request investigation of the cause of their allergies.
2. Patients with symptoms that are not clearly allergic in nature.
3. Patient suspected of being allergic to **local** anaesthetic agents.

Contact us at:

***The West of Scotland Anaphylaxis Service
Administration Building
Western Infirmary
GLASGOW
G11 6NT***

Tel: 0141 211 1823

EDUCATIONAL AND TRAINING OPPORTUNITIES IN ALLERGY**Undergraduate medical training**

The reasons underpinning current poor allergy service provision in the UK are multifactorial, but are likely to include lack of opportunity to acquire knowledge and experience of this area at undergraduate level. In an increasingly overcrowded undergraduate curriculum, opportunities for students to receive comprehensive training in allergy are inevitably limited. Some Scottish medical schools have already considered the potential to pull existing, disparate elements on allergy into one coherent, organised and comprehensive curricular theme. The Working Group recommends that all medical schools take this approach to enhance knowledge of, and exposure to, allergic disease in medical undergraduates.

General Practice training

The first national training curriculum for general practitioners, approved by PMETB, was introduced in August 2007 (www.rcgp.org.uk). The curriculum makes mention of specific disorders such as asthma, hay fever, eczema, urticaria and anaphylaxis in the context of relevant organ-based clinical management sections. Allergy is not however profiled as a particular public health or clinical problem and, with the exception of anaphylaxis, the curriculum does not cater specifically for training needs in relation to systemic and non-organ specific allergic disease.

Physician training

Allergy has been formally recognised as a defined medical specialty in its own right with its own approved curriculum since 1999. At the present time the only formal training curricula which incorporate sufficiently comprehensive allergy training to adequately cater for the broad sweep of organ-specific and systemic allergic disorders as an integral component of training are the Joint Royal Colleges of Physicians Postgraduate Training Board (JRCPTB) programmes in allergy and in immunology for adults and, for children, the Royal College of Paediatrics and Child Health programme in paediatric immunology and infectious diseases. Training numbers in these specialty programmes are limited with at best only small increments in training numbers in recent years.

The UK Postgraduate Medical Education and Training Board (PMETB) has recently approved the updated JRCPTB curricula for higher specialist training in allergy and in immunology. A number of organ-based training curricula which may contain an element of theoretical and experiential allergy training have also been approved. However, allergy is generally not a large, educational component of these other training programmes, the requirements of which would not entail acquisition of detailed knowledge of the immunological mechanisms underlying allergic disease, nor the care of patients with systemic allergic disorders.

Nurse training

There are no formal programmes of specialty or sub-specialty nurse training in allergy in the UK. Professional networking support for qualified nurses involved in allergy care is accessible through the Royal College of Nursing Immunology and Allergy Nurses Group and the recently formed British Association of Allergy and Clinical Immunology (BSACI) Nurses in Allergy Group.

A number of courses to certificate, diploma and degree levels are available in the UK to help nurses acquire knowledge relevant to nursing role extensions in allergy. There is a frequent need to supplement such formal activities with extensive, local training in development of functional working skills, which is generally reliant on the supervision and mentorship of an experienced medical clinician.

Dietitian training

Educational and development opportunities, information and support for dietitians working with allergic disease are available through the British Dietetic Association. Formal modular training, particularly relating to food allergy, can also be undertaken within the structure of certificate, diploma and MSc courses in allergy offered by a number of higher educational bodies in the UK.

Pharmacist training

Extending non-medical prescribing practices has the potential to substantially benefit the efficiency of front-line care for patients with chronic allergic diseases. Beyond those adjusted arrangements and responsibilities for prescribing, there are no current mechanisms for training pharmacy staff in further role extension relevant to allergy care. Development of such mechanisms will necessitate collaborative interaction between established allergy care providers and the Royal Pharmaceutical Society of Great Britain.

Patient Information and Education

There is already much accessible information, help and advice directly available to patients from national and international sources. In the UK these include organisations interested in allergy either generically or from organ or tissue-specific perspective such as Allergy UK (www.allergyuk.org), asthma UK (www.asthma.org.uk), The Anaphylaxis Campaign (www.anaphylaxis.org.uk) and the National Eczema Society (www.eczema.org). The efforts of these bodies require to be supported and to be supplemented by additional clear, impartial, informed and well governed patient information from NHS service provider sources, including information regarding local service structures and tiered NHS access gateways.

MEMBERSHIP OF THE WORKING GROUP

ANNEX G

Chair

Dr. R. Herriot Consultant Immunologist, Aberdeen Royal Infirmary

Members

Ms. L. Adams Public Health Nurse, NHS Greater Glasgow

Dr. M. Bissett Consultant Paediatric Gastroenterologist,
Royal Aberdeen Childrens' Hospital

Ms. L. Campbell Paediatric Nurse Specialist, Dr. Gray's Hospital, Elgin

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Dr. V. Doherty Consultant Dermatologist, Royal Infirmary of Edinburgh

Ms. M. East Representative, The Anaphylaxis Campaign

Dr. C. Fischbacher Consultant in Public Health Medicine, NHS National Services

Mr. Q. Gardiner Consultant Ear, Nose & Throat Surgeon, Ninewells Hospital, Dundee

Dr. R. Hague Consultant in Paediatric Infectious Diseases & Immunology,
Royal Hospital for Sick Children, Glasgow

Dr. A.D. Howie Consultant Physician, Stirling Royal Infirmary

Dr. E. Kirkwood Senior Lecturer in Immunology / Honorary Consultant in Bacteriology,
Western Infirmary, Glasgow

Mr. N. Leadbeater Scottish Executive Health Department

Ms. A. McGregor Director, Pharmaceutical Model Schemes, Royal Pharmaceutical
Society of Great Britain, Scottish Department

Dr. P. Mishra Senior Medical Officer, Primary Care Division,
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Ms. B. Neely Patient / Public Representative

Dr. H. Rhodes Consultant Paediatrician, St. John's Hospital, Livingston

Professor A. Sheikh Professor of Primary Care Research and Development,
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Professor J. Schwarze Edward Clark Chair of Child Life and Health
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Dr. M. J. Thomas Consultant Immunologist, Western Infirmary, Glasgow

Ms. P. Waugh Senior Dietitian, Royal Hospital for Sick Children, Glasgow
Senior Dietitian, West of Scotland Anaphylaxis Service

Dr. S.F. Wood Senior Clinical Lecturer, General Practice and Primary Care,
University of Glasgow

REFERENCES

ANNEX H

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ISBN: 978-0-7559-7576-1 (web only)

RR Donnelley B61205 06/09

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