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REVIEW

The UK General Practice Airways Group (GPIAG): its formation, development, and influence on the management of asthma and other respiratory diseases over the last twenty years

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Abstract

This article describes the formation and development of the UK General Practice Airways Group (GPIAG), from its inception as a small respiratory special-interest group founded by six general practitioners in 1987 through to its transformation into the largest primary care specialist society in the UK. It highlights the historical context in which the GPIAG was founded – at a time when there was increasing concern about under-treatment and under-diagnosis of asthma in primary care – and describes the way in which its foundation was one of the major influences that led to profound innovation in the primary care management of respiratory disease as well as changes across the primary/secondary care interface. The GPIAG is now a registered charity, has an expanding membership, and has acquired a high profile both nationally and internationally as an advisory body on policy and strategy for the management of respiratory disease in primary care. This review is a 20th anniversary tribute not only to those who have contributed to the success of the GPIAG over the last twenty years, but also to its current membership who enable the GPIAG to continue working towards its charitable aim of "optimal respiratory care for all."

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Introduction

A number of major influences in the 1980s led to a dramatic change in the primary care management of asthma and other respiratory diseases in the UK over the next twenty years. These include the work done by Greta Barnes and her colleagues at the National Respiratory Training Centre in providing training for practice nurses in chronic asthma management, the formation of the General Practice Airways Group (GPIAG), the development of national and international guidelines for managing asthma – and subsequently other respiratory diseases such as chronic obstructive pulmonary disease (COPD) and rhinitis, and the merging of the Asthma Society, the Friends of the Asthma Research Council and the Asthma Research Council into the National Asthma Campaign.[1] We start by describing the background working environment and prevailing attitudes to the management of patients with asthma in the 1980s. We then focus on the formation of the GPIAG, the major steps in its development over the next twenty years, its influence on the management of respiratory and allergic diseases in primary care, and finally how the GPIAG will tackle future challenges.

Background

At the beginning of the 1980s, the management of asthma and other respiratory diseases in the UK was still firmly in the hands of our secondary care colleagues in hospital. The accepted prevalence of childhood asthma was very low, as was the number of prescriptions given for preventer-type medication. Despite the then British Thoracic Association's confidential enquiry into asthma deaths in 1982,[2] and a subsequent report from an international task force re-emphasising the preventable nature of asthma death,[3] some patients and practising general practitioners (GPs) still believed the myth – perpetuated ever since it was proposed by Henry Hyde Salter[4] and William Osler[5] in the latter part of the 19th century – that asthma was not a fatal illness. Alternatively, other groups of doctors and patients approached the management of asthma with a fatalistic nihilism in the firm belief that nothing much could be done about it. Many still believed that asthma was associated with neurotic illness in families,[6] and diagnosis was hampered by the considerable level of stigma associated with the word 'asthma'.[7] A longstanding GPIAG member, Anna Livingstone, remembers "being told off by my senior partner, who was aged nearly 80, for telling someone she had asthma!"

However, clinicians' experiences and the medical literature were beginning to alter prevailing attitudes. In 1979, Nigel Speight concluded that childhood asthma was under-diagnosed and under-treated,[8] and in a subsequent paper written with Debbie Lee and Edmund Hay, suggested that this was essentially a primary care problem.[9] People with asthma were experiencing loss of schooling and work opportunities, economic disadvantage and unacceptable symptoms, and the possibility of preventing asthma death by better medical management was being accepted. Primary care management of asthma was still largely concerned with treating acute attacks – GPs were frequently required to do home visits to administer intravenous aminophylline and intramuscular adrenaline at the bedside, and to provide acute nebulisation. An epidemiological study from London demonstrated an increase of 167% in asthma admissions between 1970 and 1978, largely due to an increase in re-admission rates: the fact that most asthma care was taking place in the hospital setting without a corresponding reduction in death rates led the authors to suggest a need for hospitals and general practice to agree jointly on management policies for acute asthma.[10]

Yet there were insufficient resources within primary care at this time – not least in terms of general practice organisation and the knowledge base – to manage asthma and other respiratory diseases without referral to specialists. There was no real tradition

of primary care research into respiratory disease that could then inform primary care decision-making, and consequently there was little, if any, recognition of primary care respiratory medicine. There were only a few, albeit widely-cited and very influential, early papers by GPs on the importance of patient education in asthma; these included papers written by two of the six founder members of the GPIAG, Sean Hilton[11] and Douglas Jenkinson,[12] and also Patrick White at St George's Hospital Medical School,[13] together with Ian Gregg who, with others, pioneered the use of peak flow monitoring in primary care.[14-16]

The founding of the GPIAG and the first Annual Scientific Meeting

It was against this background that GPs started questioning the then misconceptions about asthma and the quality of asthma management for their patients. One innovative GP, Paul McCarthy (who later joined the GPIAG Committee), unhappy with the current inhaler devices for young children, invented a mask for use on a spacer device – the now famous 'McCarthy mask'.[1] A few GPs and nurses were writing about the quality and delivery of asthma care in the early 1980s.[17-19] In 1984 Agius and Gregg described the role of practice nurses in the management of asthma,[20] followed by Pearson and Barnes a few years later.[21] Levy and Bell[18] confirmed that Speight was probably correct – asthma in children was under-diagnosed – and they identified a marked delay in diagnosis too. These findings were later replicated by others,[22-26] who had suggestions for reducing diagnostic delay.[22,25,27] There were already reports in the literature suggesting that asthma should be thought of more as a chronic disease, and that GPs should not simply be treating episodes of acute respiratory illness with antitussives, antibiotics and nebulised bronchodilators. An early study by an East-End London GP, Henry Blair, had demonstrated that over 27% of 12-year old wheezy children who were followed up for 20 years still had symptoms requiring treatment.[28]

The idea for a general practice asthma special interest group was initially conceived by Peter Barritt, a GP in Shropshire.[29] Initial discussions with many interested parties followed in the mid-1980s, and with an offer of an educational sponsorship grant and financial support from Alan Wright of Allen and Hanburys, a group of six GPs with an interest in asthma – Peter Barritt, Sean Hilton, Douglas Jenkinson, Kevin Jones, Mark Levy and Clive Sherlock – founded the General Practitioners in Asthma Group (GPIAG) in 1987.

The first Annual Scientific Meeting (ASM) of the GPIAG took place in Birmingham in November 1988. Over 60 GPs attended from all over the UK, despite incredibly foggy weather. By the time of this first meeting, there was already an increasing move towards changing the traditional secondary care-dominated system for delivering asthma care. The founding committee had planned and structured the initial ASM to give delegates an opportunity to participate in small group syndicates, thereby encouraging a free flow of ideas and suggestions for solutions. Our 'pre-meeting' project (the first of many!), for which delegates were asked to audit asthma treatment, revealed a high level of prescribing of inhaled steroids – clearly related to the special interest of members attending this first conference. Small group syndicates discussed and summarised plans for tackling various aspects of asthma management and the organisation of asthma care in general practice. These included: the nature of asthma; the role of nurses and nurse-run clinics; guidelines; diary cards; patient education; the role of schools; early diagnosis; acute asthma management; drug therapy; and audit and research methods.

GPIAG aims and early successes

The main aims of the newly-formed GPIAG were to provide a forum for ideas, to be a source of expert advice, to form a research group, to set up regional groups (17 were set up but did not survive beyond the early 1990s) and to hold annual scientific meetings. The first committee created three distinct roles; Mark Levy became the first GPIAG Chairman, Kevin Jones the Editor of the GPIAG Newsletter (later to be called *Asthma in General Practice* in 1992), and Ron Neville became the first Director of Research. The first ASM set the scene for the development of co-ordinated research under Ron Neville's leadership; in essence, members helped each other learn about audit, teaching, research, publication, and the presentation and dissemination of results into practice. In turn this led to GPIAG publications which altered the way patients with asthma were managed, thereby improving outcomes.[30-35] The publication by Christine Bucknall (a subsequent member of the GPIAG committee) and colleagues of the first in a series of landmark studies in 1988 indicating that drastic change was needed in the way asthma was managed in hospital was highly influential.[36]

Working with the NRTC

Asthma care started to change dramatically in the UK during the late 1980s and early 1990s. Whilst the GPIAG played a major role in this revolution, it didn't work alone. There was much-needed support from GP partners and nursing colleagues who learned new skills, and from the pharmaceutical industry – Allen and Hanburys and Fisons in particular – who took an enlightened view and supported educational initiatives without expecting an immediate marketing return.

Greta Barnes MBE is undoubtedly one of the great UK innovators in asthma care. She first became interested in asthma in 1983 under the mentorship of a GP in her practice, Robert Pearson, and subsequently set up the first asthma training centre for nurses in a small house in Stratford-upon-Avon in 1986. From these humble beginnings, and with initial support from Allen and Hanburys and the Asthma Society of the UK, she built up an international training organisation known initially as the Asthma

Training Centre and later as the National Respiratory Training Centre (NRTC). Links between the NRTC and the GPIAG were (and continue to be) very close; for many years, Mark Levy, one of the GPIAG founding members, was the Medical Advisor for the NRTC. Now known as Education for Health, the organisation continues to flourish under the leadership of one of Greta's first graduates, Monica Fletcher, and it celebrates its 20th anniversary with the GPIAG this year. Over 10,000 nurses had been trained in respiratory care by the mid-1990s. There is no doubt that this innovative development, coupled with the changes brought about by the 1990 National Health Service (NHS) GP contract for provision of primary care services, led to a dramatic evolution in the role of practice nurses in the management of chronic respiratory disease in the UK.

Early asthma guidelines

It is not widely appreciated that the first UK 'asthma guideline' for primary care, entitled 'A Protocol for the Care of patients with Asthma,' was in fact published as a structured series of clinical educational folders by the Royal College of General Practitioners in 1986.[37] The folders, which were widely disseminated in the UK, provided a useful collection of booklets, charts, manuscripts and other information, including papers on running asthma clinics,[21] teaching the use of inhaler devices,[38] using nebulisers,[39] and asthma self management.[40]

Of course, the subsequent pioneering development by Martyn Partridge, Brian Harrison, Mike Pearson and the late Anthony Hopkins which led to the first British Thoracic Society national asthma guideline published in 1990[41] was enormously influential – see Martyn Partridge's review on page 145 of this issue[42] which gives an excellent overview of changes in the management of asthma over the last twenty years.

Development of the GPIAG in the 1990s

By the mid-1990s, the GPIAG had become more firmly established and formalised, a constitution was developed (largely through the work of Paul Stephenson, former Committee member and now Deputy Editor of the *PCRJ*), and nurses had become established participants at the ASM. We became widely respected and accepted by our secondary care colleagues, largely because of good quality research publications, notably from the Dundee GPIAG research group – Ron Neville, Gaylor Hoskins, Fiona Bryce, Barbara Smith and Colin McCowan.[32-34,43-46] Ian Charlton and colleagues were doing pioneering work on asthma clinics[47-53] and Kevin Jones' 3-question morbidity index, which evolved into the Royal College of Physicians '3 Questions', was being developed.[54] We were being invited to represent primary care views on all sorts of committees and guideline working groups and the GPIAG was fully involved in the production of the new British Asthma Guidelines published in 1997.[55] Our members were presenting their work at national and international meetings. The most influential early GPIAG publication was the first National Asthma Attack audit,[34] the result of one of our designated 'National GPIAG Projects,' which highlighted the lack of adherence to the previous BTS Guidelines.[41]

Primary care solutions for primary care problems: the foundation of the GPIAG Chair in Primary Care Respiratory Medicine

One of the guiding principles of the GPIAG has been the development of primary care solutions for primary care problems. Only 10 years ago, most of the evidence for the management of asthma and other respiratory diseases in primary care was generated in trials performed in secondary care on highly selected patient populations. It was the recognition of this fact that led Dermot Ryan, soon after he became Chairman of the GPIAG in 1996, to highlight the need for the first academic chair in primary care respiratory medicine. He consulted widely concerning the development of the concept, and the following people were extremely helpful in this regard: Robin Fraser, Professor of General Practice at the University of Leicester; Greta Barnes, Director of the NRTC; Martyn Partridge, Professor of Respiratory Medicine at University College London; Sean Hilton, Professor in the Department of General Practice at St Georges Medical School; Michael Silverman, Professor of Paediatrics at the University of Leicester; Anne Dawson of the Department of Health; and of course colleagues on the committee of the GPIAG.

In spite of the enthusiasm for the project it was clear that nothing would happen without appropriate funding. There was no source of central government funding identifiable for this pioneering project, and after effective lobbying of the pharmaceutical industry, a consortium was formed to finance the start-up and running costs for a five-year period. A sum of some £400,000 was raised over five years, and the GPIAG will forever be grateful to people with vision in GlaxoSmithKline, AstraZeneca, MSD, Boehringer Ingelheim, 3M and Schering Plough who shared their time and expertise and donated funds.

The bursary thus created was advertised, applications from universities were invited, and a team of interviewers (David Price, Douglas Fleming, Director of the RCGP research unit and Bob McKinley, now Professor in the Department of General Practice at Keele University) awarded the bursary to the University of Aberdeen. David Price was appointed to the Chair in 2000, therefore having to relinquish his post as GPIAG Chairman, and Thys van der Molen was also appointed – this joint appointment was shared until Thys' appointment to a chair in Groningen in 2005. There followed an immediate expansion of the role with the creation of a team of part-time Clinical Research Fellows. David and Thys have been involved in the development of an academic network both nationally and internationally in order to realise the vision of doing high quality clinical research in a real life primary care setting (http://www.abdn.ac.uk/general_practice/research/special/rg.shtml). The GPIAG Chair is now fully funded by the University of Aberdeen.

The Aberdeen GPIAG research unit

The Aberdeen GPIAG research unit works closely with a number of other research units around the world, particularly the Universities of Groningen in the Netherlands and Adelaide in Australia, and has strong links with other UK research departments in Edinburgh, East Anglia, Leicester, Plymouth, and the School of Pharmacy. It has two main strands of research work – the diagnosis and impact of common respiratory conditions in primary care, and evaluations of different management options and strategies for respiratory disease.

Work by the Aberdeen group has shown a massive under- and mis-diagnosis of respiratory disease, particularly in terms of COPD, dysfunctional breathing, and rhinitis.[56,57] With international partners the unit has developed screening questionnaires for the differential diagnosis of asthma and COPD, and the detection of COPD in at-risk smokers.[58-61] These questionnaires have been endorsed for use by the International Primary Care Respiratory Group (IPCRG) and are included in the IPCRG guidelines published in this journal last year.[62] Other epidemiological research has assessed the prevalence and associated quality of life of self-reported chronic respiratory disease in rural and urban areas of Scotland,[63] the impact of rhinitis on asthma,[64,65] and a possible link between lower antibiotic prescribing trends in general practice and community-acquired pneumonia mortality.[66] The group has worked extensively with computerised general practice datasets examining many respiratory-related clinical issues, including the safety of long-acting beta-agonists, the persistent use by GPs of high-dose inhaled corticosteroids in children, and variations in respiratory outcomes between different GP practices.[67] The group has also examined the important issues of drug and non-drug interventions in respiratory disease[68-73] and the important issue of patient communication and enablement.[74,75]

The new millennium: from 'club' to charitable status

In 2000, John Haughney took over the role of GPIAG Chairman. The start of the new millennium was a time of great change and many challenges. The GPIAG and its members were having to adapt to the demands of computerisation in primary care, the increased amount of academic research in respiratory and health care, the increasing demands of patients, and the increased demands for GPIAG expertise to facilitate national developments. Our influence in the academic, scientific, and political arenas was growing. The workload was increasing dramatically. However, our status as a 'club' of respiratory-interested primary care doctors with a single (pharmaceutical company) sponsor had left us somewhat vulnerable to criticism. It was clear that the GPIAG needed to evolve in order to meet new challenges and to continue to develop its influence.

The first full-time GPIAG Chief Executive, Pauline Johnson, was appointed in 2001, and she (and in her absence on maternity leave, Sian Williams and Kate Downey) made a very considerable contribution to the GPIAG's corporate development. In 2002, John Haughney and Pauline Johnson began the process of steering the transition of the GPIAG into a registered charity. Following extensive consultation, and following the recommendations of the Committee, the GPIAG membership voted for the GPIAG to acquire charitable status. An application was made at the end of 2002, and the GPIAG was registered as a charity on 20th June 2003. Trustees were identified, and it is a great tribute to them that nearly all of the original Trustees – David Bellamy (Chairman 1993-1996), Sean Hilton (GPIAG founding member), Melinda Letts, and Neil Kendall – have remained in post up to the 2007 Annual General Meeting. Financial support was attracted from a variety of sponsors. In 2004, Anne Smith (formerly Chief Executive of the National Asthma Campaign) was appointed as GPIAG Chief Executive, and has since further facilitated the development of the GPIAG as a registered charity.

The governance imposed by having to report annually to the Charities Commission has stood the GPIAG in good stead, and the bedrock of excellent organisational skills initiated under John Haughney's chairmanship has continued with the appointment of Steve Holmes, the current GPIAG Chairman.

Nurse involvement and a change of name

It had become clear by the late 1990s that the original name of the group – the GP's in Asthma Group – no longer represented the nature of the organisation. Although asthma had been the focus of our activities to date, it was increasingly recognised that there was considerable co-morbidity and overlap between all the common respiratory disorders; many GPIAG members were developing interests into allergic disease, COPD, and community respiratory infections. Furthermore, nurse representation at annual meetings was almost 50% of the attending delegates. It was no longer correct for the group to be called a 'GP' group, and no longer correct to call it simply an 'asthma' group. Following full discussion with, and input by, the membership, the name of the group was changed to the General Practice Airways Group. The GPIAG abbreviation was retained in deference to its brand status.

By 2005, in recognition of the integration of nursing and allied health professionals as equal members in the GPIAG, a Practice Nurse Working Party was developed. This has been working to deliver three main areas: documentation to support the value of education, training and competence in the primary care nursing environment; developing a method for setting up respiratory networks across the UK; and developing a website area for nurses. These targets are moving steadily towards completion. The GPIAG recently facilitated the development of a UK Respiratory Nurse Alliance (across all health boundaries) led by Stephanie Wolfe – the first nurse to join the GPIAG Committee in 2004.

Influence on the development of the IPCRG

The 2000 GPIAG ASM was held at Robinson College, Cambridge.

From the outset it was planned as an international meeting where the tentative links with other national primary care respiratory interest groups could be developed. The 2000 conference was attended by delegates from over 15 countries, and so stimulating was the meeting that it led to the formation of the IPCRG (www.ipcrg.org). This meeting and the influence of the GPIAG on the development of the IPCRG is highlighted in the review written by Ron Tomlins and Sian Williams on page 140.[76]

Championing the role of the GP with a special interest (GPwSI)

The GPIAG Education committee has been extremely influential in providing guidance and representation on a number of developments in the UK, in particular the role of GPs or practitioners with a special interest in respiratory disease (GPwSIs and PwSIs, respectively). The paper by Williams *et al* published in 2002 set the scene,[77] and there followed papers on accreditation,[78] appraisal and developmental support,[79] and GPwSIs in allergy.[80] In this issue we have a Discussion paper on the terms of employment for GPwSIs and PwSIs.[81]

The *Primary Care Respiratory Journal* and other GPIAG publications

The initial GPIAG newsletter edited by Kevin Jones became *Asthma in General Practice* in 1992. In 1996, a new editorial board was appointed, headed by Mark Levy, with the specific task of developing a high-reputation peer-reviewed academic journal. In 2000, the journal became the *Primary Care Respiratory Journal* (*PCRJ*) in order to reflect the increasing interests of the GPIAG at the same time as the organisation's name changed to the General Practice Airways Group. The development of the *PCRJ* has therefore mirrored the development of the GPIAG itself.[82] The *PCRJ* was awarded full Medline/Index Medicus listing in February 2006,[83] and is now the official journal of the IPCRG as well as the GPIAG – in which sense it is one of the most visible manifestations of the links between the two organisations.[76] The most recent developments in the evolution of the *PCRJ* are highlighted in the editorial at the start of this issue;[84] these include the re-design of the journal itself, and the new *PCRJ* website – www.thepcrj.org – which provides free online access to all past and present *PCRJ* papers. The GPIAG is extremely grateful for the help and support it has received from successive publishers (Vox-Prism, Colwood House Medical Publications, Strategic Medical Publishing, GPIAG Publishing (Tricia Bryant), Elsevier, and now Sherborne Gibbs) all of whom have contributed enormously to the *PCRJ*'s development.

The GPIAG website (www.gpiag.org) was started with great foresight in the early 1990s by Ron Neville and Colin McCowan, and all of the other major GPIAG publications are available online on this site. These include the popular and highly-regarded 'Opinion Sheets.' Our website designer, Lynn Danzig, has raised the quality and status of both sites to such a level that we are attracting internet browsers worldwide.

Lobbying and influencing

The GPIAG is now very well known within the respiratory community. It is almost impossible now to conceive of a UK respiratory guideline involving primary care which does not have GPIAG input. The GPIAG is working increasingly closely with secondary care colleagues at a research, education and policy level, and has recently been recognised more formally by the Royal College of General Practitioners so that the two organisations can collaborate on areas of common interest. The GPIAG has been involved from the start of the Department of Health's 'scoping' exercise leading to the announcement that a National Service Framework for COPD would be developed,[85] has helped the Healthcare Commission in its quality assurance of respiratory care in England, and senior GPIAG members are working with NHS Scotland on initiatives in asthma and COPD. GPIAG members contribute to the work of the National Institute for Clinical Excellence (NICE) Guidance and Technology Appraisal process regularly, and the GPIAG is automatically contacted by NICE[86] when respiratory-related guidance is being considered.

The future

Looking back at the development of the General Practice Airways Group over the last 20 years, there are several key strengths which, if maintained, should stand the organisation in good stead for the future.

- The GPIAG is not centred on any one individual and has always prided itself on its democratic structure; input from GPIAG members has always been sought before major change, and the Annual General Meeting is always a lively forum for discussion.
- The GPIAG has always been, and will always be, based on the passion of its members to improve the quality of respiratory health care in the UK. The group has been able to attract many like-minded clinicians and researchers, many of whom have worked for hundreds of hours outside of their normal daily workload in order to help the group develop.
- The GPIAG has fulfilled the aims of its founders by facilitating the channelling of that passion into particular areas – be it clinical expertise, teaching, research, publication, or other areas relevant to primary care respiratory medicine.
- The GPIAG has from the outset aimed to work collaboratively with other groups who have similar aims, and we are now reaping the rewards of this collaborative approach.

The future of the UK NHS is perhaps more unclear than at any time over the last 50 years; rapid policy changes and increasing demands on healthcare professionals are an all too familiar part of the current environment of the NHS. However, if the GPIAG can

retain its passion, enthusiasm, drive and spirit of collaboration into the next 20 years, and bring with it the wisdom, friendships and ethos that have evolved during the last 20 years, then the GPIAG will have a future to proud of.

Conflict of interest declaration

There were no directly relevant conflicts of interest for any of the authors in the preparation of this paper.

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