

How Confident Are Britain's General Practitioners in the Field of Aviation Medicine?

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Introduction: In the United Kingdom, General Practitioners (GPs) provide a staggering 90% of National Health Service (NHS) contacts with the British Population. With the population estimated to be making an estimated 65.7 million flights abroad during 2015, these interactions are likely to be a notable contributor to the decision about a person's fitness to fly. The knowledge and self-reported confidence of GPs is therefore potentially of considerable significance, particularly if providing incorrect or inaccurate information which may cause risk to patient or flight safety.

Methods: A short survey was created using the SurveyMonkey website and data collected from qualified doctors through local (CCG/trainer groups) and online methods (private online forum). This assessed whether they had any training in aviation medicine their confidence in giving information on fitness to fly and where to direct patients to with queries they felt unable to answer.

Results: Survey respondents who were fully qualified GPs composed 58% of the total (n=88). The average self-reported confidence of GPs on an ordinal scale from 1-10 (1 - least confident, 10- most confident) was 3.8 (SEM 0.354). Non-GPs & GP trainees mean self-reported confidence was 3.5 (SEM 0.427). Doctors who had completed formal training in aviation medicine reported mean confidence of 6.0 (SEM 1.47). Knowledge regarding where to signpost patients to was also generally poor amongst doctors without formal training.

Discussion: The Royal College of General Practitioners curriculum contains no demonstrable competencies relating to knowledge of aviation or travel medicine. Whilst it may be desirable that patients with specific questions regarding their fitness to fly communicate directly with their airline, the patient's GP is likely to be the first point of call; additionally medical aviation services may struggle if GPs were unavailable to answer them on an informal basis or unsure where to signpost to as is suspected to be happening currently. In light of the findings from this study, clearly there is a need for further analysis of how to improve the confidence and teaching of aviation medicine and travel medicine in the GP curriculum.

Learning Objectives: Despite the high number of Britons travelling by air, their GPs receive no formal training in aviation medicine in the RCGP curriculum and report low confidence in advising patients regarding their fitness to travel and where to signpost them to.

Introduction

The NHS is the publicly funded organisation responsible for providing healthcare to the UK population. It is free at the point of access and is virtually universal in its coverage. There are 1 million clinical encounters every 36 hours [1], approximately 90% of which occur between patients and their family doctor or general practitioner (GP) [2]. The number of GP consultations continues to rise in the context of an ageing population with complex co-morbidities [3]. The typical length of a GP consultation is somewhat astonishingly only 6 minutes [4].



Diagram 1: Length of GP training in UK [5]

The training of GPs takes the form as shown in diagram 1. During each of the three training phases there are clearly defined curriculum outcomes one must meet in order to progress to the next; passing the final stage is recognised with the attainment of Membership of the Royal College of General Practitioners (MRCGP). Whilst this is a globally respected qualification, the curricula leading to it require the doctor to have no knowledge of aviation medicine [6]. With the UK population making 65.7 million trips by plane in 2015, a significant proportion of which will have chronic diseases which may impact on their capacity to make the journey safely, it is clearly likely to be an issue of growing importance [7].

The responsibility for determining the fitness of an individual to fly remains with the airline and GPs do not have the training or expertise to make this assessment. This guidance prioritises safety and is clearly the best approach to minimise in-flight medical emergencies; however recognising when a patient needs to be referred to the relevant airline's medical assessment unit is something which GPs should be able to do. The confidence GPs feel recognising patients who may need pre-flight assessment is therefore important to ensure patient safety. The purpose of this short survey was to assess the confidence and self-reported competence of GPs and GP trainees.

Methods

A short survey of 10 questions was created using SurveyMonkey, an online survey website. Responses were collected from doctors using a closed social networking forum to which only GMC-registered UK-based doctors could access and through local GP training networks in South London.

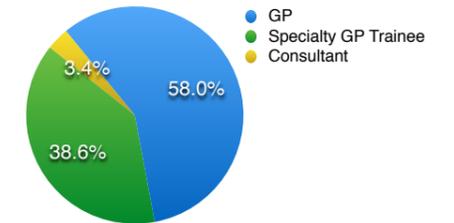
The first 4 questions assessed: i) the training grade of doctor ii) postgraduate experience or education in aviation medicine iii) whether the doctor's duties involved providing fitness to fly information iv) how confident the doctor felt providing information regarding their patient's fitness to fly (ordinal scale 0-10). The next 5 questions then assessed the responders clinical knowledge on common situations they may encounter in clinic - for example when in terms of a pregnancy the patient could fly or when following an uncomplicated myocardial infarction they could fly. The final question assessed the resources the doctor may utilise to find information if they were unsure.

The survey was completed within a 3 day period during August 2016. The survey have 88 respondents who took part fully. Results were not given following completion the survey. The data was extracted to an excel spreadsheet and analysed to assess for significance of results.

Results

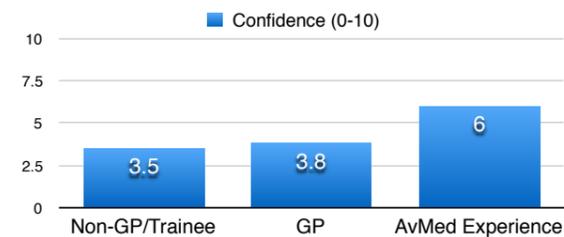
Composition of Respondents

The majority of responses were from fully qualified GPs (n=51) or GP trainees (n=34). Although other doctors in hospital will be providing information regarding fitness to fly, the normalisation of air travel could perhaps give the impression this area is somewhat non-specialist and that a generalist should be able to manage their health issues; additionally as many patients who attend travel clinics for immunisations or seek travel advice for overseas travel destinations do so in the community anyway. This result was therefore more helpful in assessing just doctors working in this setting. Of the consultant respondents, these composed 4 senior paediatricians. Their responses were excluded from further data analysis.



Training in Aviation Medicine

Of the 85 GP respondents, 5 had had training in aviation medicine. 3 of these had done the Diploma in Aviation Medicine and the other 2 had worked for an air retrieval/HEMS service. None of the non-GPs had formal training or experience in aviation medicine. There is no data to assess the average prevalence of aviation medicine experience amongst GPs more generally.



How confident do you feel advising patient's regarding their fitness to fly?

The average overall score for this was 3.8 for fully qualified GPs (SEM 0.354). Non-GPs & GP trainees mean self-reported confidence was 3.5 (SEM 0.427). Doctors who had completed formal training in aviation medicine reported mean confidence of 6.0 (SEM 1.47). This included both the DipAvMed and prior experience working in this field.

Discussion

The Royal College of General Practitioners curriculum contains no demonstrable competencies relating to knowledge of how aviation may impact upon patients who enter our consultation rooms. The increasing prevalence of chronic conditions amongst the UK population and their predilection for holidaying overseas are only likely to make this more of a concern in the future. For many elderly patients this may be the most 'physiologically taxing' event they go through on a yearly basis.

Despite advice to patients that they should contact their airline directly with any questions regarding their fitness to board a flight, this is unrealistic for routine queries that one would reasonably expect a GP to know. Additionally knowledge around where to signpost patients too was poor. There was likely a degree of selection bias from the cohort of GPs answering the survey having accessed it from the online forum and perhaps the survey should be repeated with a more representative sample of the wider GP population.

The curriculum is likely to continue to evolve to reflect the changing nature of the demands of being a GP. There will always be competing demands for content in the context of a limited number of learning outcomes. What this survey suggests is that there is a need for formalisation of teaching in basic aviation medicine in order to improve the confidence of GPs. Evidence presented here suggests (although cannot confirm) this works well, although clearly the scope and nature of teaching on the DipAvMed course is in excess of that required for general practice.

The RCGP itself is enthusiastic about the increasing the duration of training to that of a four year training programme. At this point one could make an argument for introducing a module or learning outcome on the topic of aviation medicine; this might then lead to increased confidence of GPs in the community, reducing the potential risk of in-flight emergencies by underprepared or ill-informed passengers.

References

- [1] <http://www.nhsconfed.org/resources/key-statistics-on-the-nhs>. Last accessed on 13/4/2017.
- [2] <http://www.rcgp.org.uk/policy/rcgp-policy-areas/blueprint-for-general-practice.aspx>. Last accessed on 13/4/2017.
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- [6] <http://www.rcgp.org.uk/training-exams/gp-curriculum-overview/online-curriculum.aspx>. Last accessed 13/4/2017.
- [7] <https://www.ons.gov.uk/peoplepopulationandcommunity/leisureandtourism/articles/traveltrends/2015>. Last accessed 13/4/2017.

Working outside of competencies?

Perhaps surprisingly and tellingly the data show that 63.5% (n=54) GPs were indeed providing information to patients regarding this despite the vast majority having no formal training or aviation medicine experience. The nature or context of this information being given was not assessed during this survey.

Clinical Questions

There was marked variability of answers for the clinical questions. When asked when in terms of gestational age in a singleton pregnancy they would advise against flying, 24% (n=12) said before 32 weeks. The CAA and RCOG would advise later than this (after 36 weeks). This may lead to confusion and perhaps frustration for patients seeking consistent answers to routine clinical problems.

Resources available to doctors

When asked where they might search for information in order to better inform themselves and their patients, many GPs were unsure, simply replying they might use an online search engine. Others mentioned they would check the CAA website or contact the airline themselves directly. There was a high degree of uncertainty around this area which may also lead to incorrect or inappropriate advice being given for unverified sources.