Travel Related Medicine – a Discipline with a Tenuous Evidence Base

Ian MacKay

A mere 15 years ago travel-related medicine was practiced by isolated individuals working in general practice and infectious disease units, with a sparse support network. In time, some practitioners developed a common need for cooperation and the International Society of Travel Medicine (ISTM) was born, followed shortly by the British Travel health Association (BTHA). The ultimate acknowledgement of travel medicine as an independent discipline came with the admission of Members and Fellows to a Faculty in the Glasgow Royal College of Physicians and Surgeons.

In the UK the general practitioner contract of 1995 encouraged establishment of travel health clinics, now staffed predominantly by nurses. There was a need for educative courses and conferences which have proliferated since, with diploma, degree and post graduate courses meeting the demand.

The paucity of empirical research within the embryonic discipline was recognised,[1] with Wilkes noting that," little attention was being given to empirical research, even though field studies are a critical component in provision of accurate medical advice for patients." In the interim, the vogue for evidence based medical practice (EBM) also became established as a gold standard and the basis for good clinical practice. Integrating evidence based medicine into routine management can improve care of patients if treatment guidelines are based on the best available evidence,[2] maximising efficacy and convenience and minimizing toxicity Much of current general medical practice still does not have a strong researched literature base, or what is available may be misleading due to conflict of interest.[3] However, GPs and consultants appreciate the need to utilise the evidence base in clinical decision making.[2,3]

The BTHA executive has continued to recognise the importance of research and endeavoured to stimulate new projects with research grants and provide a platform for authors to report research results through the medium of the journal. Few have responded to these offers and the association is now investigating the opinions of members on the relevance of research and their personal involvement. New BTHA initiatives are promised if unmet need for support is identified.

Diploma and degree courses require students to undertake small research projects, but very few reach publication and even fewer students continue with research once graduated. Few members and fellows of the new Faculty of Travel Medicine were elected on their research accomplishments.

The research section of the BTHA journal was created to facilitate the publication of research papers by novice authors, but relatively few articles come from British sources and these mainly from the academic environment, or

teaching hospitals. Some researchers may opt for publication in a medline-cited publication, but trawl of peer-reviewed journals does not support this hypothesis. There is evidence that travel medicine journals and more general medical journals read by UK doctor and nurse have skewed research and review contents, with undue emphasis on topics such as malaria, vaccine-preventable and infectious disease.[4] Malaria management can be complex and vaccination guidelines justify a large presentation, however many important topics relevant to the everyday practice of travel medicine are neglected. Specialist journals in other disciplines, such as dermatology, respiratory, cardiac disease and geriatrics do not appear to make up the shortfall. Rarely read by family doctors and practice nurses, they are unlikely to be effective in disseminating results to travel health professionals, or consolidate, or widen the discipline's evidence base.[5]

Risk assessment and clinical management are fundamental to travel clinics, but their value and efficacy is rarely audited or subjected to community study and is poorly represented in the journals. One of the most likely medical mishaps to international travelers especially younger travellers, is a traumatic event, in a road traffic accident or sporting activity[6], but there are no good UK research statistics on incidence, causation, injury type, outcome and avoidance. National surveillance of accidents and injuries occurring in travellers while abroad is not currently undertaken[7] leaving many unanswered questions for the practitioner in the travel health clinic, endeavouring to identify potential risk and advise the traveller. The insurance industry must have a substantial data base established from accident insurance claims, but this never appears in the medical literature if released at all, as it is considered commercially sensitive.

A similar situation arises with people traveling with pre-existing disease the effects of which are most likely to cause morbidity and mortality in older travellers. How many succumb while abroad? What conditions are most likely to create problems whilst overseas? How and where are they treated? How many are hospitalised and require repatriation? The definitive data to provide the evidence base for rational pre-travel clinic advice in this respect is not available. Sea cruising attracts ever more travellers with many of senior years. There are very few publications casting light on their mishaps, management and outcome. Ship-board trauma is common and many demands are made on ship doctors who often have very short contracts and have no time, or inclination for on board research. The data collected by cruise-line management is not disseminated to the medical profession, again for commercial reasons. Travel thrombosis is a subject of extensive professional debate and lay interest, but the subject is poorly researched, with case reports and small studies merely fuelling the debate. The Government action and reporting needed to provide the research based evidence of a relationship with air travel is still awaited. The evidence base required to support guidelines for best practice is not extant.[5] Common conditions affecting hundreds of world travellers are poorly addressed in the literature, often with reviews based on a few insubstantial published papers.

Travel clinic consultations often involve pregnant, diabetic, elderly and child travellers and correct advice and management is important, yet the researched

based data to back up advice and guidelines is paper thin. Innovative and necessary research, carried out by nurses and doctors in the travel medicine field is very limited, outwith investigation of malaria and infectious disease. Recent changes in contract and work demands, have diminished the likelihood that GPs will initiate personal research into subjects of special interest. Overworked practice and travel clinic nurses get no protected time or encouragement to participate in research.

Few active researchers involved in travel medicine are interested in the wider range of topics in this field of special interest. International conferences publicise a plethora of papers on many topics, but these are often small, parochial and pedestrian with no lasting impact on the research scene. Globally there is a paucity of evidence base for many of the crucial elements in the practice of travel medicine. Continued professional development and revalidation processes place emphasis on professional access to the research literature, but this may be a weak source of professional advancement and updating, if subjects pertinent to everyday practice are absent or poorly recorded.[4]

Literature reviews also show an over —abundance of publications and citations in some travel medicine subjects and a paucity and absence of material in many others. Again, topics of everyday importance in travel health management, e.g. pregnancy, diabetes and trauma, are poorly represented. Research journals do not adequately cover the wide range of subjects associated with travel medicine, a cause for concern as research reports provide substance for reviews and educational texts.[4]

Many practicing travel health professionals may depend on reference books and manuals which were initially in short supply with the advent of travel medicine. This has been addressed, although several important areas of immediate interest to travel health professionals like elderly travellers, cardio and pulmonary compromised travellers and those with pre-existing illness are often poorly served. Travel health text books and guide-lines can be poorly referenced, provide dated references, or quote from obscure inaccessible journals. In the absence of researched evidence, the educative value of their text is diminished.

Some may now access the worldwide web, but material can be inadequately referenced and provide a poor evidence base. Government-backed websites are excellent sources of information on malaria and infectious disease, but can be unhelpful for the professional managing the traveller with a phobia, or the debilitated elderly person intent on a sea cruise to Antarctica.

Attention has been drawn to the fact research publications provide authenticity and the evidence base for rational management which, added to clinical experience, can guide towards best practice. EBM can help to build consensus around clinical guidelines and ensure that guidelines evolve to incorporate new evidence, but this needs a sound evidence base which is fragmentary within this discipline. Without current best evidence, practice and management run the risk of becoming out of date, and without it the discipline may be built on a pack of cards.[4]

There is an obvious need for more research across the broadest spectrum of travel related medicine. The revalidation process may encourage this in some, but for most individuals working in the field, there needs to be the incentive of protected time or financial incentive. The colleges must develop, encourage and support interest. Without research and improved evidence base, management depends on experience, which only comes with many years of practice, anecdote, and case history .Without improved data collection and its dissemination, the discipline cannot advance and health professionals cannot provide "best practice ".It has taken a decade for travel medicine to gain recognition , without a commitment to data collection and research it may never reach full maturity

References

1 Wilkes J Grenfell R. *J.Trav. Med.* 1997. 4.2.83-9. Travel and Health research.
2 Lockwood,D Armstrong, M. Grant A. Integrating evidence based medicine into routine clinical practice: seven years' experience at the Hospital for Tropical Diseases, London. *BMJ* 2004; 329: 1020 - 1023.
3 McColl A Smith H White P. Field J. General practitioner's perceptions of the route to evidence based medicine. *Brit. Med.J.* 1998. 316 361-65.
4 McIntosh I. A literature review of publications in the travel medicine journals Brit. *Trav. Health Assoc. J.* 2008.11. 40-43.
5 Sackett DL Rosenberg MC Muir Gray,JA et al Evidence based medicine: what it is and what it isn't. *BMJ* 1996;312:71-72 (13 January).
6 Foreign travel associated illness. England Wales and Northern Ireland. Health Protection Agency 2007 HPA. London.
7 Update: Risk of Dying Abroad. *Brit. Trav. Health J.* 2008. 33.

Ian MacKay is a GP with special interest in travel medicine.