

Are international medical conferences an outdated luxury the planet can't afford?

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YES Climate change is accelerating, and our propensity for releasing carbon dioxide and other greenhouse gases into the atmosphere is contributing massively. We owe it to our children and grandchildren to minimise our contribution to the acceleration, putting off the day when the environment becomes terminally unstable for human existence.¹

For each of us to reduce our carbon footprint from 8 tonnes a year in the United Kingdom to the 2 tonnes that is our sustainable share is a task that is hard to conceive. But a journey of a thousand miles starts with but a single step, and doctors and scientists should be asking themselves how they can act.

Low energy light bulbs, improving the insulation of our homes, and driving less will contribute. But if we stop going to international conferences we can make a significant difference and be seen to be giving a lead. By finding new ways of communicating with our colleagues in other countries, we can save time, energy, and carbon emissions.

Unnecessary luxury

Why do we attend international conferences in such large numbers? One reason is to keep up to date in our specialty. We attend lectures, seminars, presentations, and plenary sessions, sitting in darkened rooms and listening to speakers talking to their slides, followed by a few questions. With modern technology speakers could be relayed from their home auditorium and we could just as well enjoy these sessions in darkened rooms in BMA House or in our own hospital or office. We could even ask questions if the session was in real time.

We also go to conferences to present our work to our colleagues and to obtain their feedback. Those who attend these sessions could instead join together in virtual networks, with people presenting their work by conference call or conference video or by virtual poster accessed through the internet. Sessions could be set up to link as many network participants as is desirable, with a chair to catalyse and control the discussions.

We go to conferences to meet our colleagues. Sometimes we spend time with collaborators

or competitors from abroad, but often conferences are the opportunity to network with colleagues from the United Kingdom in a relaxed setting. Surely there should be ways of achieving this creatively on home territory. Collaborators from abroad could be linked by conference video while key people could arrange to meet offline occasionally.

Finally, it is argued that we go to conferences to see the sights and enlarge our horizons. But most conferences are in undistinguished conference centres, surrounded by impersonal hotels, and could be anywhere in the world. It is better to choose places to go on holiday for their own merit and stay at home for conferences.

Environmental impact

So would abandoning conferences make a material difference? Take the American Thoracic Society, a relatively small example of the genre. Every year, over 15 000 respiratory doctors and scientists, of whom about 3500 are from Europe, trek to some great location in the United States. Callister

and Griffiths calculated that the carbon burden of flying delegates to and from the 2006 conference in San Diego was about 10 800 tonnes, representing some 100 million person air miles.² For the American Cardiac Society meeting, attended by 45 000 people, the total would be over 300 million person air miles. If there are, say, 20 medical conferences a year in the US and we add in conferences in Europe, Asia, and Australasia, the impact from travel to conferences would be at least 6 billion person air miles a year or 600 000 tonnes of carbon. This equates to the sustainable carbon emissions for around half a million people in India³ or the carbon dioxide absorbed by 120 million mature trees covering 120 000 hectares of rainforest.⁴ Add in the energy costs of huge hotels, enormous conference centres, and all the attendant activities, and the environmental impact becomes mind boggling.

Can alternatives work?

Is it realistic to expect people to attend virtual conferences? This would require a new mindset in which comfortable facilities would be provided and discussion with other colleagues



facilitated. The excitement of a foreign visit might be lacking, but the easy practicalities of a trip to London or regional hub could compensate. There would be no jet lag, no interminable waits at airports, no lost luggage, no weekends away travelling.

Could conferences be as good at a distance? The answer is a resounding yes. Organisations such as oil companies, financial institutions, and inter-governmental bodies have regular and highly successful conference calls and videoconferences. Some are

so vivid that in the heat of discussion members forget they are separated by oceans. At a recent transatlantic conference a participant in New York asked his colleagues if they would like coffee and several hands were raised in London. Teenagers communicate with each other all over the world by VOIP (voice over internet protocol), with or without video links, using only their home computers. Surely we could follow their example?

There would be costs associated with setting up virtual conferences, but these will be much less than those of flying people around the world, staying in expensive hotels. Our grandchildren will view with amazement our profligacy and inefficiency in flying across continents in great clusters to exchange information. Huge international conferences will be as outdated and unsuitable for a modern world as the dodo, the fax machine, carbon paper, and the horse drawn carriage. We must be bold and act now to plan and welcome the new world of information transfer.

Competing interests: MG attended international conferences for 30 years.

Every year thousands of doctors and scientists fly to meetings at distant locations. **Malcolm Green** argues that this is no longer justifiable or necessary, but **James Drife** believes face to face contact is hard to replace



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NO Last week I resolved to give up international conferences. It was at 5 am in a hot Asian airport, after waiting an hour for someone to stamp our papers. In the plane I cooled down and reflected that it could have been worse. At least I didn't have food poisoning this time. On balance the trip seemed worthwhile. Women in that resource poor country needed better health care. Our conference may not have done much to help them, but I would do even less by staying home and sulking.

But I suppose this debate is about big conferences in posh places. It is easy to be cynical about them. Medical journals keep expressing doubts, from an urbane *Lancet* editorial in 1957¹ to a *BMJ* cover in 2003 depicting doctors as pigs fed by pharma reptiles.² In 2008 our guilt is expressed as concern about carbon footprints,³ so I should start by putting this into perspective.

The United Kingdom is ranked eighth among the world's carbon dioxide emitters, with 160 million tons/year (one tenth of the United States's total and one eighth of China's).⁴ Air travel accounts for 6.3% of our emissions.⁵ In 2007, UK airports handled 230 million passengers, 12% of whom were on domestic flights.⁶ Sixty per cent of UK international travellers are holidaymakers.⁷

Forgoing medical conferences will have a minuscule effect on global warming, but it is argued that doctors should lead by example,⁸ as we did on smoking.⁹ This seems fanciful. Although people respect our opinion on medical matters, we should not kid ourselves that we have the same influence on all issues. We

could campaign collectively for fuel surcharges but simply staying in our surgeries will not persuade patients to stop attending away matches or tropical weddings.

Importance of real contact

Nevertheless everyone should do their bit, so we must weigh the benefits of conferences. An excellent 1995 paper gave these as "education, inspiration, evaluation, presentation and recreation."¹⁰ Education means more than dishing out knowledge. It also involves skills and attitudes. We will not influence attitudes by haranguing people on a video link, like Orwell's presciently named Big Brother.

For me, inspiration is the most important. A conference can motivate those attending, and I still feel inspired by hearing Mahmoud Fathalla, founder of the Safer Motherhood initiative, in Rio in 1988.¹¹ Conferences can also stimulate global action. The 1964 Declaration of Helsinki would have had less effect on research ethics if it had been the 1964 group email. Conferences in the 1990s focused world attention on overpopulation and tobacco and boycotted the apartheid regime in South Africa.¹²⁻¹⁴ Uniform journal references were agreed only because medical editors met in Vancouver in 1978.

Of course, there are alternatives. Journals are still the best way to disseminate research findings. In the 1980s the internet was expected to replace meetings¹⁵; in the 1990s electronic conferences were promoted¹⁶; and last year a "Facebook for science" appeared.¹⁷ None of these can replace genuine communication. The *Lancet* commented: "There is no substitute for meeting in the flesh . . . One

savant said that he attended only to learn whether X and Y were as big liars as he judged them to be from their published papers."¹

And now there is videoconferencing. Some speakers believe that being seen is more compelling than being heard or read and that fielding questions is real interaction. This is not my experience. At my first videoconference the distant audience wisely stayed out of camera range. My last one was punctuated by unexplained far-off laughter. For relating to people, videoconferences are less effective than mobile phones.

Changing attitudes is a two way process. As a travelling speaker, you learn more than you teach. You begin to understand local problems by observing fellow delegates, who are usually more interested in new technology than public health.¹⁸

Compromise

I believe doctors should continue to meet, but where? Should we insist on going only to resource poor countries¹⁹ despite their airports? Conferences have to be economically viable, and most delegates want comfort. Should we ban sponsorship?² If we do, only the richest doctors will attend. Rather than taking extreme positions, I think compromise is essential.

For too long we have had articles from well known speakers complaining about too many invitations and preaching self denial.²⁰⁻²¹ They evoke little sympathy. If they are tired of travelling they should say so, not dress it up as a moral crusade. We need less posturing and more practical proposals. Editors, happy to publish advertisements for conferences,²² should offer a networking facility so that congresses on the same topic are not organised back to back in different continents. Medical organisations could get tough with the professional conference organisers who now run these events. We could insist that doctors' meetings are run differently from those of hairdressers or sales people.

When Professor Fathalla was asked, "What is the most exciting travel you have undertaken?" he replied: "In rural areas in several continents, trying to communicate with, and learn from, poor, rural women."²³ Organisers could be pressed to organise similar

experiences to complement plenary sessions. This would be hard work and increase costs, but it would be more constructive than hiding behind our computer screens and pretending that this is helping the planet.

Competing interests: JOD travels about three times a year as a consultant to the World Health Organization's "Making Pregnancy Safer" programme.

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