

EMWA

European  
Medical Writers  
Association

# The *Write Stuff*

The Journal for European Medical Writers

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## Regulatory writing

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**Journal insights**

The **Write Stuff** is the official publication of the European Medical Writers Association. It is issued 4 times a year and aims to provide EMWA members with relevant, informative and interesting articles and news addressing issues relating to the broad arena of medical writing.

We are open to contributions from anyone whose ideas can complement these aims, but opinions expressed in individual articles are those of the authors and are not necessarily those held by EMWA as an association.

Articles or ideas should be submitted to the Editor-in-Chief (see below) or another member of the Editorial Board.

**Subscriptions**

Subscriptions are included in EMWA membership fees. By writing to [emwatws@associationhq.com](mailto:emwatws@associationhq.com) non-members can subscribe at an annual rate of:

- €35 within Europe
- €50 outside Europe

**Instructions for contributors**

- The **Write Stuff** typically publishes articles of 800–2500 words although longer pieces or those with tables or graphics will be considered.
- All articles are subject to editing and revision by the Editorial Board. Any changes will be discussed with the author before publication.
- Submissions should include the full address of the author, including the telephone and fax numbers and email address. Suitable quotes for side boxes can be indicated or they can be selected by the Editorial Board.
- Material should be submitted by email as an MS Word file using Times New Roman (or equivalent), 10 point size, and single spacing.
- Published articles generally include a recent photograph of the author (portrait picture, CV or passport style, min. 360 x 510 pixels).

**Timelines**

Month distributed	Deadline for receipt of articles	Deadline for receipt of adverts
March	1 <sup>st</sup> January	15 <sup>th</sup> February
June	1 <sup>st</sup> April	15 <sup>th</sup> May
September	1 <sup>st</sup> July	15 <sup>th</sup> August
December	1 <sup>st</sup> October	15 <sup>th</sup> November

**Advertising rates (in euros, €)**

Corporate	Private / Freelance members only
• Full page	€1000
• Half page	€500
• Full page	€200
• Half page	€100

**Behind the press**

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**Cover picture**

Photograph of Pharmacy LEVSTIK, Ljubljana from Antonio Živković  
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## Upcoming EMWA Conference **28<sup>th</sup> EMWA Conference,** **26–30 May 2009, Ljubljana, Slovenia**

The 28<sup>th</sup> EMWA Conference will have a regulatory theme and we will be exploring medical writing in the regulatory domain from many different angles. There will be several new seminars and discussion forum sessions at which you can voice your questions to experienced writers and see how others are tackling similar issues to your own. The conference will be held at the Grand Union Hotel ([www.gh-union.si](http://www.gh-union.si)).

The conference will provide members with opportunities to continue their training on the EMWA Professional Development Programme. As always, the workshop programmes will cover a wide range of medical writing topics, ranging from clinical protocols to publication planning. There will be training for beginners as well as advanced workshops for experienced writers wishing to keep their knowledge up-to-date and refresh their skills



## Announcing the **29<sup>th</sup> EMWA Conference** **12-14 November 2009, Westin Grand Hotel, Frankfurt, Germany**

We are delighted to announce that the venue for EMWA's 29<sup>th</sup> conference will be Frankfurt, Germany. This is a very convenient city to travel to from all corners of Europe, and is a perfect location for our 2-day autumn conference to be held from Thursday 12<sup>th</sup> to Saturday –14<sup>th</sup> November 2009.

Many workshops will be on offer covering a wide range of medical writing topics for those wishing to obtain credits towards their foundation or advanced EMWA professional development programme certificates, or simply to update their knowledge and skills.

In addition there will be a chance to meet old friends and make new ones at the welcome buffet on the Thursday evening and the conference dinner on the Friday evening. These social events are excellent opportunities for networking with other medical writers from Europe and beyond.

Further details will be posted on the website at [www.emwa.org](http://www.emwa.org).



From the guest editor's desk:

## What sort of a regulatory writer could YOU be?

by Sam Hamilton

### Exploring the regulatory medical writing portfolio in our changing world

Regulatory medical writing provides the bread and butter for a significant proportion of EMWA members, so it is fitting that this is the theme for the forthcoming May 2009 Ljubljana conference. This issue of *TWS* supports the conference theme and, I hope, will spark discussion about the evolving regulatory environment and the pharmaceutical industry in general.

The discipline of regulatory writing with all its attendant guidelines and regulations is considered liberating by some, and stifling by others. Liberating, in that objective and uniform reporting of data can be powerful enough to launch a much needed first or alternative therapy for an important disease or condition; stifling, in that the templates and rules the writer is expected to adhere to can bludgeon individual creativity to death! A bit strong perhaps, but the general idea is worth exploring further.

We all have a writing journey. Mine was from the creative to the prescriptive and is, for now, a comfortable combination of the two. As a child at junior school, I loved creative writing, and found I was good at it. My creative ability was underpinned by the teachings of my formidable headmistress (now undoubtedly over 100 years of age), Miss Collingwood, of Wakefield Girls' High School (Junior Department). Her common-sense guidelines for writing have remained with me ever since: every story needs a beginning, a middle and an end, and the detail must be sufficient to place the reader in the story, without boring them. By adhering to this general formula, I wrote good yarns and developed an understanding of the power of the written word. Throughout my career as a pre-clinical scientist in academia and subsequently in clinical research, I built on that early foundation and married science and writing to good effect. To my surprise, the basic creative writing formula still held, with allowance for differing levels of detail depending on the target audience. However, there was that nagging (although only slight) worry early in my regulatory writing career that my original creativity—of which the 8-year-old me had been so proud—was being blunted. I now see that my childhood creative writing formula fitted my then undeveloped scientific bent. Having developed this general formula along its natural course to suit my professional needs, I now find myself in a well-structured and more than occasionally creative place—as a regulatory medical writer—and I rather like it.

The spectrum of regulatory writing may be split in any number of ways: division according to document type and field, which in turn apply to therapeutic area, disease (or condition) and drug class (or drug), seems reasonable enough (see Figure 1). Exposure to different types of regulatory writing varies enormously from one writer or organisation to another. However, broadly speaking, new writers often cut their teeth on compilation documents such as the Investigator Brochure (IB), progressing to sections of, and then, full Clinical Study Reports (CSRs). The ideal for new writers should surely be to gain as broad an experience as possible, across a variety of document types and therapeutic areas, diseases or drugs, to cement a firm foundation either to serve as a platform from which to continue to diversify, or to develop in-depth expertise in a limited number of specialised areas. These specialised areas usually encompass one therapeutic area or disease, or a drug class or even a single drug, and such expertise is commonly gained inside pharmaceutical companies (Pharma). Contract research organisations (CROs) provide broader training in terms of variety of therapeutic areas, diseases and drugs (generalisation). Whilst there are merits to generalisation and specialisation, a third, and perhaps less obvious choice exists. Freelance medical writing provides flexibility and enables experienced writers to step outside the pure regulatory writing arena. Alison McIntosh, a seasoned freelancer who straddles two very different writing arenas serving both medical communications and regulatory audiences, presents her personal view of what she terms 'broad-spectrum' medical writing. This approach must take account of different audiences and therefore encompasses different writing styles. It also allows for responsiveness to market needs—and in our changing world, that is not unimportant. Alison's views on broad-spectrum writing are challenged by representation from the CRO sector. Mary Jane Lunsford, Premier Research Group's Executive Director of Global Medical Writing puts the case for pure regulatory writers, and in particular the efficiency they bring to complex regulatory projects, when starting from 'cold'. Even within the constrained context of regulatory writing, we still have to think of our audience. Laurence Auffret, a specialist in Patient Information Leaflet (PIL) readability testing reminds us that although regulatory assessors are our *first* audience, the *prime* audience is the patient when preparing certain regulatory documents. Laurence explains the general associated processes to ensure that material intended for the lay audience is comprehensible and appropriately written.

## What sort of a regulatory writer could YOU be?

Whatever the approach—pure regulatory generalisation, pure regulatory specialisation or broad-spectrum medical writing—our skills can be honed in many areas of regulatory medical writing (see Figure 1). Besides the more obvious afore-mentioned areas, there is the interesting and arguably less well-known area of ‘fields’. This issue of *TWS* showcases a small selection of regulatory medical writing fields, including early phase clinical drug development, well-established use (WEU) medicines, orphan drugs and imaging technologies, as viewed by a contingent of highly experienced writers. These fields, like document types, can (mostly) apply to any number of therapeutic areas, diseases (or conditions) and drug classes (or drugs), so the possibilities are endless. Our good fortune as writing professionals is to have such an interesting and challenging portfolio to tackle in this global climate of change.

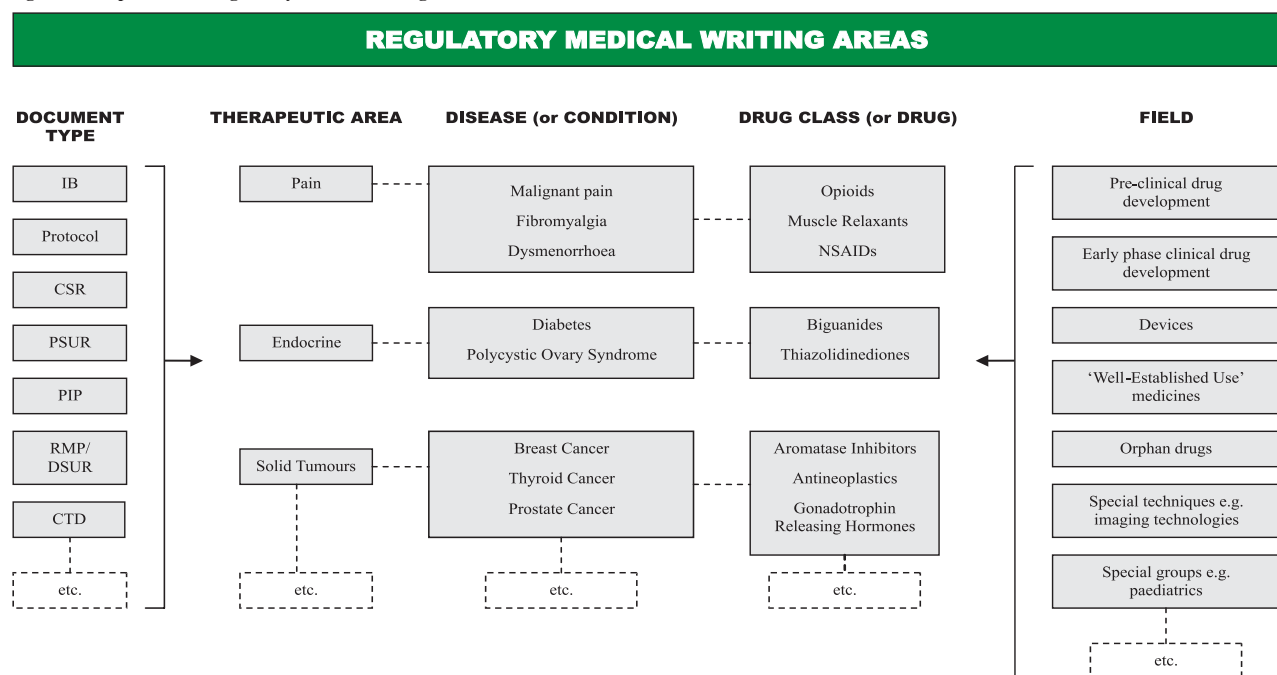
Economic and political factors are affecting our professional world now more than usual. In the past year, we have seen large shifts in the strength of the US dollar and Sterling, and an ever-strengthening Euro. Currency fluctuations can influence where business is sought out and conducted. Let us also consider in simplistic terms the effect of the worldwide economic downturn on the pharmaceutical industry. We are beginning to see the results of reduced availability of venture capital for smaller biotechnology companies. Fewer new chemical entities (NCEs) now make it out of the laboratory and into drug development pipelines, or they are transferred earlier to Pharma with a higher level of risk. We may also see reductions in permanent Pharma headcount, including writing professionals. This should be tempered by the fact that pharmaceuticals

historically represent a relatively stable sector in times of economic turmoil and that there is no reason why the current downturn should be any exception—after all, we still need drugs. And there remains plenty of work to do in supporting product labelling through the huge variety of areas and clinical regulatory documents that feed drugs out to market.

That said, we cannot escape politics. Change will undoubtedly be felt in our industry in the medium to longer term. The European Union (EU) Competition Commission estimates that delaying or blocking the development of cheaper generic versions of medicines by pharmaceutical companies cost EU healthcare providers approximately €3 billion between 2000 and 2007. This alleged practice is under investigation at seven major Pharma companies, and, as the Competition Commission can impose substantial fines (AstraZeneca was fined €60m for its attempts to block generic versions of its anti-ulcer medication, Losec in 2005) [1], European Pharma may have to rethink its current strategy. US Pharma may be forced to do the same—planned US healthcare reforms will prevent drug companies from blocking the release of generic drugs onto the US market [2]. As there are also plans to allow US consumers to import safe drugs from other countries, it will be interesting to see how far the new American government goes in controlling pharmaceutical drug pricing. Continental Europe is attempting to control healthcare spending; most countries are increasingly reliant on the evaluation of the relative effectiveness and cost-effectiveness of drugs to guide reimbursement decisions. Germany, for example, has recently introduced this type of evaluation into the legal

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Figure 1: Spectrum of Regulatory Medical Writing



IB, Investigator's Brochure; CSR, Clinical Study Report; PSUR, Periodic Safety Update Report; PIP, Paediatric Investigation Plan; RMP, Risk Management Plan; DSUR, Drug Safety Update Report; CTD, Common Technical Document; NSAID, non-steroidal anti-inflammatory drug.

Examples given for Document Type, Therapeutic Area, Disease (or Condition), Drug Class (or Drug) and Field are non-exhaustive.



## &gt;&gt;&gt; What sort of a regulatory writer could YOU be?

framework of its healthcare system [3]. We now also see sophisticated, and often unsafe, counterfeit copies of world-leading drugs made in China, flooding into the UK via National Health Service (NHS) pharmacies. In 2008, fake consignments into the UK included the antipsychotic Zyprexa, and more than £3 million of heart disease and cancer medicines were intercepted in the first 10 months of the year. The high price of medicines in the UK means cash-poor NHS Trusts are vulnerable to offers which really are too good to be true [4]. With availability of generics, pharmaceutical drug pricing and counterfeit medicines such topical issues, it is hard to imagine that industry and governments won't reconsider current policy. Resulting price reforms on either side of the Atlantic will impact the industry. It may be too simplistic to speculate that drug development may accelerate to maximise returns sooner, but for those of us concerned with workflow within the industry, it makes sense to watch these areas closely.

The advent of personalised medicine could be another potential watershed. As the implications of decoding the human genome become clearer, the potential to develop more targeted medicines based on the personal genetic map of the patient cannot be ignored. Clinical programmes could be redesigned to develop therapeutics for the micro-markets of receptive subpopulations instead of the existing blanket approach—and this may have untold impact on the way the industry brings new products to market.

So, economic and political change combined with potential new approaches to drug development and a constantly evolving regulatory environment make for a heady mix! In changing times, flexibility is paramount and we should be encouraged to arm ourselves with knowledge and prepare to be responsive to market needs. The experiences of colleagues in some of the more off-beat regulatory corners are worth considering. The area of early phase (I and IIa) clinical drug development is ably introduced by freelancer Biddy Schilizzi, who describes pharmacokinetic and pharmacodynamic reporting and the associated available training and guidelines. Iain Colquhoun, a respected consultant in the field of devices and WEU medicines, introduces the concept of demonstrating the required safety and efficacy of ubiquitous WEU products through the humble literature review, when seeking marketing authorisation in a new regulatory region, because of the absence of clinical and pre-clinical studies. It is also relevant to note that devices and drug-device combinations are now being held to higher standards of Good Clinical Practice (GCP) compliance than has previously been the case, and are therefore likely to generate more regulatory submission documentation. Christiane Breithaupt, a regulatory affairs associate experienced in the field of orphan drugs brings to our attention diseases justifying orphan drug status and the associated regulatory environment which ensures the continued development of medicines for rare conditions, despite low economic returns. Claire Gillow, a medical doctor writing for the specialist imaging CRO, Perceptive Informatics, describes the role of medical writers in independent imag-

ing review. These contributors highlight the tip of the iceberg when it comes to the available wealth of interesting regulatory writing fields, should we choose to venture onto less well-trodden paths.

So whatever your personal journey, and your view of our changing times, a good stop along the way would be to attend the May 2009 Ljubljana EMWA Conference. Many of the accredited courses and special themed events, including seminars and discussion forums, deal with regulatory areas as wide-ranging as Paediatric Investigation Plans (PIPs), medical writing for vaccines, pharmacogenetics, devices, orphan drugs, advanced therapeutic medicinal products, and risk management. There will also be representation from the regulatory agencies and authorities, including The European Medicines Agency (EMA), the US Food and Drug administration (FDA) and the Association of the British Pharmaceutical Industry (ABPI). This agency perspective is key for us as a group because unless our writing activities are appropriately directed to support product labelling in the eyes of the assessors, then it opens to question the purpose of what we do.

I hope that in drawing together this selection of articles, and highlighting the range of exciting possibilities in an ever-changing world of regulatory writing, I have provided a taster to whet your collective appetite. See you in Ljubljana!

**Sam Hamilton**

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**References:**

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4. Health fears grow as fake drugs flood into Britain. The Observer, 4 Jan 2009. URL accessed 5 Jan 2009: <http://www.guardian.co.uk/business/2009/jan/04/fake-pharmaceuticals-drugs-china-nhs>

## Tip for English grammar and word usage resource

The Grammar Curmudgeon site operated by Rich Turner at <http://www.grammarmudge.cityslide.com/Home.html> is a good resource for writers. The site includes sections on grammar, words and usage, and it has links to articles and to sites where writers can contact other writers or discussion groups.



## Message from the President

by Julia Forjanic Klapproth

With this President's message I am confidently passing the baton onto our Vice President, Helen Baldwin. This transition is the first to occur under the 4-year system for the Vice President and President terms combined. So I would like to give you my perspective of how it went. After I convinced a rather hesitant Helen that she would be great in the position, she enthusiastically ran for and was elected into the position of Vice President. For the first time a Vice President did not have to hit the ground running. Instead of coming into office and being expected to coordinate a spring conference within the year, she was able to spend the first year acclimatising to her position and her role on the Executive Committee (EC). She could ask lots of questions about how things are done and she had time to watch and observe to figure out the why, when, where, who, and what of running EMWA... without having the full responsibility of it all. After 2 years as Vice President, I can say that she has grown into her role naturally and is ready to spread her wings and fly as President. And I am absolutely sure that I am passing the baton onto someone who EMWA can depend on and who will have excellent ideas to lead us all forward, which was the driving idea behind having a 2-year Vice Presidency. It was intended to ensure an opportunity for knowledge transfer and to bring stability to the leadership of the organisation. In my opinion, this system has delivered everything I had hoped it would. And I would like to take this opportunity to thank Helen for her constant support and great ideas over the last 2 years.

But the Vice Presidency is not the only position that will be changing at the elections during this year's Annual General Meeting (AGM). All of the elected positions (Web Manager and Journal Editor are appointed positions) are up for election, meaning we are still looking for nominations for these posts. To date we have received 2 nominations, 1 for the post of Public Relations Officer and 1 for the post of Vice President (see page 31 for their candidate statements.) However, I welcome more nominations for these and the other posts (Treasurer, Honorary Secretary). First, having a single candidate for a post does not make for a true election, and second, it would be great to have new members on the EC in the other posts to bring new ideas and initiatives to the committee. So if you have been thinking you might like to get involved, then talk to any EC member and find out which position seems best for you.

Another point that will be voted on during the AGM is the recommendation from the EC to move our company registration back to the UK. In fact, the UK company was never closed and so, should we decide to do this, the act would be one of awakening the dormant UK company, EMWA Limited. The reasons for recommending this move are multi-fold and the details will be outlined in the information to be mailed to you with the AGM invitation. But I thought I would briefly summarise the

key points: the administration in Switzerland is very complicated due to various laws (which can differ depending on the canton in which one is located and depending on the mood of the personal bureaucrat to which one is assigned) and the fact that everything is issued in German and must then be translated into English for our membership. While we were originally advised that we could save tax money by being headquartered in Switzerland, in fact, it is possible to run the company in a way that gives us similar advantages in the UK (a point which only became clear to us after receiving the sound financial advice from the financial department of our new head office provider). It is also very expensive to have a Swiss credit card payment facility, which would not be the case if we had a UK account. However, due to restrictions that have been implemented as a result of the global financial situation, we need to be an active UK company to open a UK account. Thus, while it previously seemed to be advantageous for EMWA to move to Switzerland, learning from the experience has shown that it is less expensive, less complex and equally tax friendly to be a UK organisation. Thus, we see no reason to continue our Swiss entity and would recommend to the membership that we reinstate our dormant UK entity to simplify the administration of the organisation.

The theme of this issue of *The Write Stuff* is regulatory writing, which will set the stage nicely for our upcoming conference in Ljubljana with the same theme. With the constant changes, updates and additions to the regulations that encompass drug development there is always something to be learned, which is what makes medical writing so dynamic and why, after so many years, I am still so enthusiastic about this profession. As a regulatory writer my life is full of challenges that keep me on my toes and I cannot imagine ever getting bored. I count myself lucky to have stumbled into a career so satisfying.

With that, I would like to sign off as your President. My goal when I came into office 3 years ago was to help EMWA develop an infrastructure that would give it continuity and stability. When I look at what we have achieved since then, I am content that I have at least contributed to this goal and it has been a pleasure to lead EMWA along this path. Now it is over to all of you to get involved. I became the Membership Officer at my first EMWA conference 11 years ago, at which time I coined the slogan that EMWA is an organisation by its members for its members, and I challenge you to continue to keep that flame burning.

**Julia Forjanic Klapproth**

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## Broad-spectrum medical writer: Nature or nurture?

by Alison McIntosh

Most medical writers working as an employee of a company receive their salary to write either regulatory, or medical communications documents. Rarely in larger pharmaceutical companies are medical writers encouraged, or even allowed, to write for both areas. Medical writers normally end up classed as either a regulatory writer or a medical communications writer and find it quite difficult to change direction after working in their chosen area for any length of time. I don't believe this is because they are unable to write different types of documents, but more because they are regarded by others as a resource able to function only within one of these designated areas.

Why should this be? When we write for either milieu we present the same information in a scientifically and medically accurate way, and use the same information sources. We are merely presenting the information in a different way and specifically for the target audience. Once a writer gains experience in one area of medical writing it is wrongly assumed by many that adapting style to suit a different audience is not possible. An experienced medical writer adapts their writing style to suit the intended audience. For example the same language cannot apply in both a regulatory submission and an information sheet informing patients about the medicine they will be taking. The patient information leaflet is a regulatory document but uses a very different style of writing from other regulatory documents, so what are you classed as when you write these specialised documents?

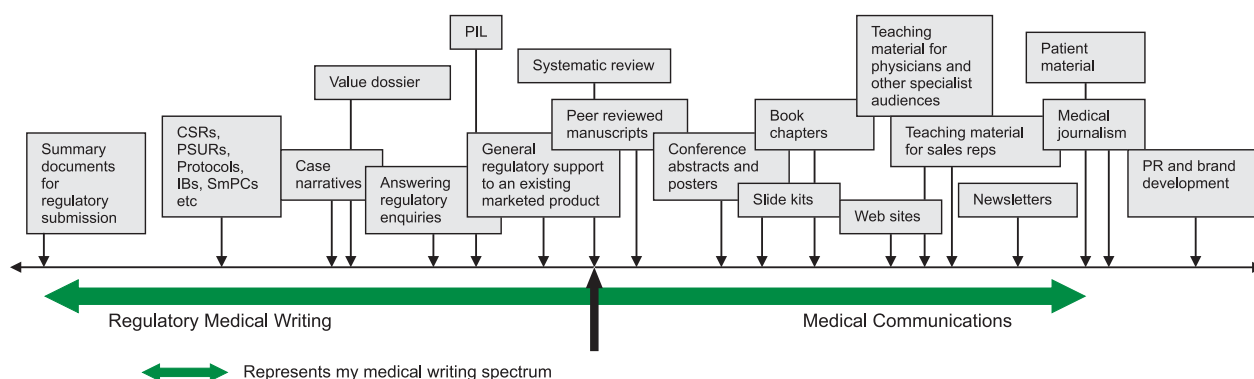
As a freelancer, I write for both audiences. Over the years I have come to think of medical writing as a 'spectrum'

(see Figure 1). In my mind, my medical writing spectrum starts from regulatory summary documents, runs through medical communications aimed at physicians and continues on to patient information and medical journalism. It begins to fade as we reach this point and peters out with medical journalism and branding. According to experience and background, other medical writers will start and finish on different parts of the spectrum.

When you become a freelancer you leave behind line managers who determine whether you can write certain types of documents. Gradually the type of medical writing you take on broadens, and whether by accident or design, you become what I call a 'broad spectrum' medical writer. Similarly, if you are working as a medical writer in a small contract research organisation I would think that exposure to different genres of medical writing is also commonplace.

As a freelancer, my medical communications work has taken various guises including book chapters, conference reports and slide kits. I have also written manuscripts for peer reviewed journals as well as abstracts and posters. Most of this material is aimed at physicians and various sectors of the medical profession with some degree of expertise. This is what I personally find easiest and probably means that I capitalise on my own educational experiences. As to style, when I step out of the regulatory environment I leave behind the stern tone of voice that I adopt for this type of writing, and as I approach abstracts, posters and newsletters I set my imaginary hat at a jaunty angle and start writing with a very different tone of voice, whilst still promoting medical and scientific accuracy.

Figure 1: An example of a medical writing spectrum



CSR, Clinical Study Report; PSURs, Periodic Safety Update Reports; IBs, Investigator Brochures; SmPCs, Summary of Product Characteristics; PIL, Patient Information Leaflet; PR, Public Relations



## Broad-spectrum medical writer: Nature or nurture?

Do all medical writers have an innate ability to write for different audiences, adapting their style of medical writing according to the intended audience, or is it a question of training and exposure to the different styles of writing?

When I became a freelancer I was principally known for my regulatory writing but over the years I have built up my experience in medical communications writing. This has been through requests from clients, and from being prepared. I began my preparations by taking EMWA workshops that did not cover topics I was already familiar with. This expanded my knowledge base and allowed me to have the confidence to undertake the new types of work being requested by clients. I think that training is an invaluable way of increasing a medical writer's scope. However, I also know that training budgets are one of the first areas to be affected in a 'credit crunch' but argue that this kind of nurturing of medical writers will pay dividends in the long run.

Freelance medical writers are expected to keep up to date with guidelines and different aspects of medical writing and usually pay for this themselves. We essentially specu-

late to accumulate, and in this case we are accumulating new knowledge to give our clients a better service. This should be true of all organisations, big or small.

Although I think that training plays a big part in being able to write for different audiences, I also know from talking to other writers that regulatory writing is not a style that suits everyone, even with training. So temperament must also have a part to play. For some, the thought of becoming a regulatory writer is like putting on a straight-jacket, and for others it feels like a natural extension of scientific training.

I therefore think both nature and nurture makes being a broad-spectrum medical writer possible. I know I am happier being a broad-spectrum medical writer than I would be being a narrow spectrum regulatory or medical communications writer. What about you?

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EUROPEAN ASSOCIATION OF SCIENCE EDITORS  
Tenth General Assembly and Conference  
Second Circular, Programme and Registration Information

## Integrity in Science Communication

**At the Palazzo dei Congressi, Pisa, Italy, 16 – 19 September 2009**

### Plenary sessions

- Opening lecture by Professors Lucia Tomasi Tongiorgi & Romano Coppini
- Keynote lecture by Professor Ele Ferrannini
- Physical Integrity
- Moral Integrity
- Editorial Independence and Responsibilities

### Parallel sessions

- Publication of full datasets
- Cultural issues relating to non-English journals
- Authorship
- Misconduct in science communication
- University Press Challenge
- Cultural integrity of journal guidelines and their translation
- The role of editors and journals in fostering responsible conduct of research
- Promoting the public perception of science through clear communication

### Optional Workshop

Managing a Journal Editorial Office

Abstracts for presentations related to the sessions listed above will be considered for either short talks, if there is time in the session, or posters. These should be about 200 words and should be submitted by 15<sup>th</sup> March 2009 at the latest.

'Early Bird' registration at the discount rate closes: 30<sup>th</sup> June 2009. See [www.ease.org.uk](http://www.ease.org.uk) for details





## The regulatory medical writer: More than a writer, an expert

by Mary Jane Lunsford

In response to the article entitled, 'Broad spectrum medical writer; Nature or nurture?' I intend to offer a different perspective as the Director of a global medical writing department at a clinical research organisation (CRO). I agree that medical writers with sufficient training and experience can generate and produce regulatory and medical communication documents. I further agree that regulatory medical writing is not suited for everyone's temperament and a broad spectrum medical writer might be exposed to more creative writing assignments including web site writing, slide deck creation, abstracts, or posters. The broad-spectrum medical writer may be able to identify the tone and style to allow them to be a good regulatory medical writer; however, I have found that a good regulatory medical writer is involved in a broad spectrum of tasks. Regulatory medical writers are trained on the latest global regulatory requirements, review other documents as part of the overall clinical research process (i.e. statistical analysis plans [SAPs]), summarise highly complex data, and are part of an internal and external team. Regulatory medical writers are familiar with International Conference on Harmonization (ICH) guidelines, regulatory style requirements, tone, and preferred terminology. Therefore, regulatory medical writers can easily meet the sponsor's needs without the additional start-up time it may take for broad spectrum medical writers who are likely to perform these tasks less frequently.

The function of a regulatory medical writer is to provide the highest quality scientific documents to satisfy the needs of the targeted audience. Regulatory medical writing has become more complex with the introduction of new requirements to secure drug approval. Since 2007, pharmaceutical companies that submit products containing a new active substance for regulatory approval to the European Medicines Agency are required to produce a Risk Management Plan. As of 2008, regulatory submissions to the Food and Drug Administration in the United States now require Risk Evaluation and Mitigation Strategy (REMS) documentation to support the approval of some classes of drugs (i.e., analgesic products that may be abused). In the global CRO environment, regulatory medical writers are trained in new global regulatory requirements and are prepared to meet the demands of each local regulatory body.

Pharmaceutical companies realise that speed-to-market is paramount to gain an advantage over their competitors. Regulatory medical writers are an integral part of the clinical

research process. The regulatory medical writer must understand the data to interpret it correctly as well as have the ability to summarise the statistical findings. Those tasks, previously the responsibility of clinical researchers or biostatisticians, are now frequently performed by regulatory medical writers. Moreover, regulatory medical writers may be expected to summarise complex pharmacokinetic data to support early drug development for 'first in man' studies. These complex and highly scientific documents need to convey a story in an understandable and transparent manner to enhance the drug submission process.

The regulatory medical writers at many pharmaceutical companies and CROs are part of a team of individuals and typically work closely with data management, clinical trial management, biostatistics, regulatory affairs, and therapeutic or scientific experts. During protocol development, the regulatory medical writer works with the internal team and the sponsor to develop a protocol that is easily executed in the clinical setting. After the protocol is implemented at the clinical site(s), the regulatory medical writer continues to be part of the process. The regulatory medical writer reviews the SAP and upon finalisation of the SAP, constructs a clinical study report (CSR) shell that includes sample text. The regulatory medical writer participates in the review of blinded listings before database lock to ensure data quality. Upon database lock, the regulatory medical writer reviews draft tables and listings before the final tables and listings are produced. The tables and listings provide the scientific data to generate the CSR. As a member of the internal team, the regulatory medical writer has the ability to complete a clear and concise CSR that reflects the results of the clinical trial. The results of each CSR ultimately become a piece of the drug submission documentation. The regulatory medical writer's participation on the team ensures streamlining of the entire medical writing process, from protocol development through the drug submission process.

Many small to mid size pharmaceutical companies seek to outsource their regulatory medical writing when internal resources are not available. Our sponsors expect that the regulatory medical writers will expertly guide them through the process to tell an effective story about the study drug for the intended audience. Dedicated regulatory medical writers provide candid feedback and suggestions for process improvements back to our sponsors. On the rare occasion that our organisation experiences an unex-

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pected increase in workload, I employ freelance medical writers who are experienced in regulatory medical writing and who are trained in our standard operating procedures. Each freelance medical writer has experience in working with our data management and biostatistics departments to resolve any data issues and has experience in analysing and summarising clinical data. Also, each freelance medical writer is managed by an internal full-time regulatory medical writer. Just as I seek to employ strong full-time regulatory medical writers, I also seek to employ contract freelancers who can contribute to our internal team as an expert, not just as a medical writer.

Pharmaceutical companies and CROs are constantly challenged to identify process improvements to get the information to the appropriate regulatory agency as soon as possible. Experienced regulatory medical writers understand the requirements and expectations of the regulatory agencies. These dedicated regulatory medical writers have been part of the internal team and have had direct access to each of the team members. Regulatory medical writers are exposed to a variety of tasks and can offer insight in protocol design so that the data generated from the clinical trial will reflect the intended information needed for product labelling, assist in data interpretations, provide summaries of statistical data, provide summaries of highly complex data, and offer suggestions for process improvements to our sponsors. Based on the broad spectrum of tasks, I conclude that a regulatory medical writer can experience the same kind of job satisfaction that may be derived from broad-spectrum medical writing. If given the opportunity, try both to make your choice.

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## Non-financial competing interests

Whether journals should pay more attention to non-financial competing interests is currently a hot topic of discussion among biomedical journal editors. One of the problems of course is where to draw the line between what is and what is not appropriate for declaration. If an author's membership of a political or other activist group or if he/she is a campaigner for a particular cause that could potential pose a competing interest declaration would seem appropriate. But there are plenty of other non-financial potential conflicts. An interesting editorial entitled "Making Sense of Non-Financial Competing Interests" has recently been published by *PLoS Medicine*. Available at <http://medicine.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pmed.0050199>

## A has-been that shouldn't have been

If you are talking in English about an event in the past that is finished, to use the *present perfect* (tense constructed with the auxiliary verb *to have* and the *past participle*) is wrong:

*Copeptin, also known as the AVP-associated glycopeptide, has been described for the first time by Smith in the year 1972 [2].*

This should read (note that I also jettisoned *for the first time* in favour of *first* and *in the year* because it is superfluous):

*Copeptin, also known as the AVP-associated glycopeptide, was first described by Smith in 1972 [2].*

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### Definitions box

## Incidence and prevalence

Incidence describes the number of times a condition or event happens in a given time period in the population at risk. Incidence describes a changing situation, whereas prevalence (see below) describes a static situation. The *Incidence rate* is therefore the number of persons developing a condition within a population over a set time period. This is usually expressed as the number of cases per 100,000 people in the population per year.

Prevalence, however, is an indication of the number of individuals in a population at risk who currently have (or in some cases who have had) a condition or event. *Lifetime prevalence* is thus the proportion of persons manifesting the condition during the period of their life up to the survey date. It is usually expressed as the number per 1,000 of the population at risk.

### John Carpenter

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## Readability testing of patient information leaflets

by Laurence Auffret

Since 2005, Marketing Authorisation (MA) holders are legally required to have the Patient Information Leaflets (PILs) of their products readability tested. In most EU countries, this only applies to new products and those which have been considerably revised [1, 2]. The (British) Medicines and Healthcare Products Regulatory Agency (MHRA), however, require that PILs for all products (also those that were on the market before 2005) be readability tested by July 2008. The European Directive 2004/27/EC (a revision of Directive 2001/83/EC) stated that the package leaflets should be “legible, clear and easy to use” and that results of readability testing should be provided to the appropriate authorities.

The MHRA do not prescribe any particular method of testing, but appropriate methods have been devised by experts in the field. Prior to readability testing, the treatment indication, dosage and any significant side effects and warnings need to be clearly defined. A protocol and questionnaire for readability testing are designed. Initially, the PIL is reviewed by an experienced PIL writer and test administrator to ensure compliance with current guidelines in terms of text, design, etc. The questionnaire uses approximately 15 questions covering the main points in the leaflet, and in particular the safety aspects. A pilot test is then conducted on three to five people and the leaflet and questionnaire are subsequently revised on the basis of the preliminary results. The aim is to produce a leaflet which passes at least two test rounds with ten interviewees in each group, although a third round may be necessary if satisfactory results are not obtained.

Using the criteria of sex, age and level of education, 20 participants are recruited and divided into two test groups reflecting the population for which the medicine is intended. If a medicine is intended to treat a rare illness, the leaflet should, if possible, be tested on patients with this illness. Medical and pharmaceutical personnel are excluded from participation. The questionnaire is used to ensure that all participants are asked the same questions in the same order and that the interview is consistent from one participant to another. Before each test interview, the aim of the readability testing procedure is explained to the participant. The aim is to determine if certain information can be ascertained from the questions and, therefore whether or not the PIL can be understood. The PIL is then tested on the first group and all interview responses are recorded. At this stage, it is important to explain to interviewees that the

leaflet is being tested for readability and not for assessing the participants’ memory or reading skills. The interviewee is asked to treat the leaflet as they would usually, as some people read leaflets as soon as they are prescribed the medicine whereas others prefer to wait until they need to find specific information. Similarly, some interviewees prefer to read through the leaflet before answering the questions and others first listen to each question before looking for the information in the leaflet. When answering questions, it is also crucial that the information requested is phrased differently to the text found in the leaflet. The interviewer should always encourage the person to use their own words as this will be the criteria used to determine if the information has been clearly understood. The length of time required to find the information and produce the answer is also scored, with a limit of two minutes. When several interviewees have difficulty in finding or understanding a specific piece of information, it is a sign that there is probably a problem with leaflet design or text. The number of times the information is understood is given a score and this is assumed if interviewees are able to rephrase the information properly. Understanding the information and acting appropriately are generally considered to be more difficult than locating the information in the leaflet.

Once the first test round has been carried out with ten participants, the results are analysed and checked for quality. Revisions in terms of phrasing and design are suggested to the MA holder. For instance, from a design perspective, it is not advisable to write a negative expression at the beginning of a line. (e.g. “This medicine **should not** be used if you are allergic to...” may not be understood at first glance if written this way:

xxxxxxxxxxxxxxxx. This medicine **should**  
not be used if you are allergic to.... xxxxx

A design better understood is:

xxxxxxxx xxx. This medicine **should not**  
be used if you are allergic to.... xxxxxxxx

Once the leaflet has been redesigned according to the suggestions, it is tested on the second group and all areas that may have proved difficult in the first test round should, in theory, obtain better scores.

Most testing service providers apply the MHRA guideline: “A satisfactory test outcome (...) is when 90% of literate adults are able to find the information requested within the

## Readability testing of patient information leaflets

PIL of whom 90% can show they understand it". However, even if conflicting testing criteria can exist, low scores are rare given the procedure applied (revision, pilot-testing, first testing round, revision, second testing round) and, on average, most questions score above 92% during the first round of tests and are well above 95% once the leaflet is revised. MA holders are entitled to use any method which enables patients to identify, understand and act appropriately on the leaflet information. This is understandably a source of great debate.

After the second testing round, a qualified person checks all the data and statistical analysis is performed using macros. Two regulatory affairs officers validate and sign off all reports. The most important aspect of the final report is to demonstrate that improvements have been made. The European Medicines Agency (EMA) and MHRA validate the reporting criteria.

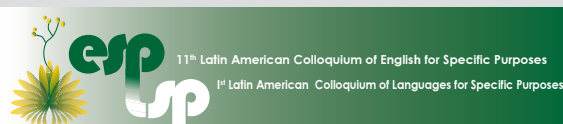
For MA holders of products aimed at the European market, there are a variety of different procedures an MA holder can apply for and depending on those, there is specific guidance about which language must be used. However, this also depends on the countries that a given product will be marketed in as well as the fact that individual healthcare authorities have differing rules on language requirements. It is therefore crucial to ensure that translations are performed by suitably qualified teams of medical translators who understand all the issues involved in processing PIL information. Thorough checking is recommended when national versions are validated by respective regulatory authorities.

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We have the pleasure to inform you that the 11<sup>th</sup> Latin American ESP Colloquium and 1<sup>st</sup> Latin American LSP Colloquium will be held at the University of The Andes (Mérida, Venezuela) from November 9<sup>th</sup> to 13<sup>th</sup>, 2009.

**Françoise Salager-Meyer**  
Colloquium coordinators

**José Villalobos**

For more information, visit:  
<http://eventos.saber.ula.ve/coloquiolf2009>

## That extra syllable really makes it sound impressive! Really?

*The objective was to compare INR using the point-of-care method with the conventional laboratorial method.*

Laboratorial? This really made me do a double-take. I have fought against the use of *lab* for years, because it is a casualism. But now that fancy *la-bo-ra-tor-i-al* has arrived, give me the casualism any time instead of pomposity! The next thing we'll see are *observatorial* fittings in the field of astronomy or *refectorial* facilities in the field of hospital gastronomy. I will always prefer *laboratory* used as a noun or adjectivally, but am beginning to wonder whether I should still insist on this in texts I edit. I will definitely insist that *laboratorial* be banned.

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## Open Access not less prestigious

Nowick, Elaine A. Academic Rank of Authors Publishing in Open Access Journals. *Agricultural Information Worldwide*. 2008;1(2):45-51.

When deciding where to publish their research results, faculty take into consideration factors such as the prestige and readership of journals. The weight a journal article will carry is particularly a concern for pre-tenured faculty members. Previous research has indicated that some faculty members may have some concerns about publishing in Open Access journals because of a perceived lack of rigor and reputation of Open Access titles. In this study, the academic rank of authors publishing in Open Access and commercial scholarly journals was compared. Most authors in both Open Access and for-profit journals were full professors. There was no indication that pre-tenured faculty avoided Open Access titles. In fact, there was a slight but significant trend for pre-tenured faculty to publish in Open Access journals (<http://tinyurl.com/6txzyq>).

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## Medical writing for early clinical development

by Bidy Schilizzi

How does one become a medical writer in early clinical drug development? Having recently taken the plunge from salaried employee to go freelance, I've become aware of an apparent need for writers with experience in this area, in particular in pharmacokinetic (PK) writing. Because the question has been asked as to how one gets started in this line of medical writing, I'll present my own observations and experience gained from working in a large Phase I/IIa CRO.

Early clinical drug development means Phase I and IIa trials, conducted in small groups of healthy volunteers or patients, respectively. For the medical writer there are a number of interesting and distinguishing features about Phase I/IIa work.

First, these trials are often 'first-in-man' studies, so safety is paramount; second, there may be an exploratory study of pharmacodynamic (PD) endpoints; and last but not least important PK data will be collected. This data will help determine the subsequent dosing level and frequency in the intended therapeutic population. Since many therapeutic agents are 'killed' in Phase I/IIa, the quality of work delivered in these early trials can sometimes make or break a particular drug.

The focus here will be on PK/PD reporting (as medical writers are generally better informed about safety writing) with a brief illustration of how regulations and guidelines are relevant to Phase I/IIa medical writing.

### Becoming a Phase I medical writer

Medical writers who write for Phase I/IIa in my experience come from various backgrounds. Writers typically come from one of the biomedical sciences, clinical medicine or pharmacology, and usually have a PhD. To ease the transition from academia to industry, many universities now offer post-graduate courses comprising specialised training for careers in the pharmaceutical industry.

Writers are, however, often recruited at a junior level directly from university, with no prior experience in the pharmaceutical industry. More experienced individuals with several years in clinical or pre-clinical research may have a pure research, project management or regulatory background. In my case, I'd worked in clinical research (immunology) at a university hospital, followed by product management at a biotech company. Whatever the background, an interest in clinical research and affinity with the interpretation and

presentation of data is a prerequisite. Prior knowledge of the principles of Good Clinical Practice (GCP), is desirable.

### Training

The skills and experience required for Phase I reporting are gained through a combination of on-the-job training, and specialised courses in PK.

The best form of training for any Phase I medical writer, regardless of background, is to work with a mentor, usually a senior colleague with PK and medical, or regulatory writing experience. In-house statistics and PK specialists, who, in larger organisations generally act as internal consultants, also play a valuable role in the learning process. In a reasonably sized pharmaceutical company or full-service CRO, there will be opportunities to work on a range of documents from pre-study (e.g. Protocol, Investigator Brochure [IB]), to final Clinical Study Report (CSR). CRO employees benefit from working for different sponsors, ranging from big pharmaceutical to small biotech companies. This provides exposure to a variety of therapeutic areas and study designs; drug products ranging from traditional chemical entities to recombinant proteins, and not least, working across national boundaries. These varying aspects broaden the range of skills and enrich the PK experience.

An understanding of PK is certainly required to interpret and describe the PK data in the CSR. This understanding is an advantage at an even earlier stage when writing or reviewing the Study Protocol or IB. Another pre-study document, the Investigational Medicinal Product Dossier (IMPD), contains summaries of information relating to the quality, manufacture and control of the Investigational Medicinal Product (IMP), and may be submitted as an addendum to the IB. A background in pharmacology or pre-clinical drug development is an added asset when it comes to preparing this rather technical document. When reviewing the Statistical Analysis Plan (SAP), a good understanding of PK enables you to contribute to discussions with the statistician and/or PK expert. All this contributes to the overall quality of the final CSR.

Completion of several CSR's containing a PK section gives a good idea of the desired structure and content of a Phase I/IIa CSR. Then follows the ideal moment to deepen or refresh PK and statistical know-how. Commercial courses (at commercial rates) are relatively easy sourced, however



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a local university pharmacology department may also offer courses suitable for medical writers. In our department, medical writers usually followed a 3-day post-graduate course in PK. Though it was not wholly applicable to the type of PK data we worked with, it was very valuable in improving the depth of our PK knowledge. A typical course should cover the kinetics of drug absorption, distribution, metabolism and excretion, and include discussion of issues such as the role of genetic polymorphism, biomolecular drugs and PK-PD modelling.

EMWA members have the opportunity to follow more specific PK courses, tailored to reporting clinical trials, such as those offered by John Carpenter (Pharmacology, Parts 1 & 2).

Once on the job (pharma or CRO), medical writers should take advantage of in-house PK training, remembering to collect certificates for all completed courses and make CV updates as proof of continuing professional development. CVs are required for the trial master file and are added to the CSR appendices.

PD reporting requires the writer to draw chiefly on their research interests and skills gained as a medical scientist without necessarily being an expert in the particular therapeutic area. The PD endpoints, or biomarkers, at this stage of clinical development are often exploratory, and interpretation of results can lead to interesting, sometimes heated, discussions with the sponsor and the study team. This is where one really gets to know one's colleagues! In my experience, Phase I/IIa medical writers really enjoy the opportunity to report results of biomarker investigations (PD studies), perhaps because it is a happy reminder of the excitement/frustrations of our lab days.

### Guidelines

Equally as important as the scientific training is the need to keep abreast of the national and international regulations and guidelines relating to the conduct of clinical trials. With the exception of writers with regulatory experience most will need to build this knowledge on-the-job. In this respect, it is a welcome development for freelancers that EMWA has begun offering courses in GCP.

In general, regulations and guidelines fall into two categories; those which medical writers must apply in their documents, and those they need to be aware of and possibly refer to in their writing.

The first category concerns content, format and structure of study documents. A good example is the International Conference on Harmonisation (ICH) E3 [1], relating to the structure and content of CSRs. It is important to note here that ICH E3 is a guideline, not a template, and that a PK section actually needs to be included for Phase I/IIa studies. Also applicable to Phase I, is the guideline relating to the Common Technical Document (ICH M4 [2]), containing, for example, technical guidelines on document layout, margins and font for electronic submission.

The second category includes regulations and guidelines such as GCP, relating to the ethics, safety and/ scientific conduct of a clinical trial, as well as guidelines on the design and analysis of particular trials. In Europe, the most recent GCP legislation results from the European Clinical Trial Directive (EU-CDT 2001/20/EC; [3]), which has now been translated into law by the member states of the European Union. This legislation governs the implementation of GCP in the conduct of clinical trials on medicinal products for human use. Final responsibility for implementation of GCP usually lies with the pharmaceutical company or CRO (the Investigator), but the medical writer must ensure that the prestudy documents and CSR reflect the correct implementation of the legislation and make reference to the regulations as appropriate.

Specific regulations and guidelines relating to Phase I/IIa are too numerous to adequately cover here. Full guidance is available via the ICH, FDA or European Medicines Agency (EMA) websites; however it's worth mentioning some examples.

In 2006, the US Food and Drug Administration (FDA) published Guidance on Exploratory Investigational New Drug (IND) Studies [4]. This guidance refers to Phase 0, or microdosing, trials which are exploratory, first-in-human trials using sub-therapeutic doses. They are designed to accelerate the development of promising drugs by establishing very early on whether the drug or agent behaves in human subjects as was anticipated from preclinical studies. PK is the prime objective. Safety and tolerability at sub-therapeutic doses are not expected to be an issue and safety assessments are kept to a minimum.

Other guidelines relate to the design and analysis of a particular study e.g. a bioequivalence [5]; or QTc [6] study.

An important recent European guideline with impact on the design of Phase I trials was published in 2007 following the TeGenero trial in the UK [7]. This guideline focuses on factors influencing risk and drug quality, and considers designs for first-in-human clinical trials.

Keeping abreast of guidelines and regulations for clinical trials may not be anyone's idea of bedside reading. However, there is absolutely no escaping their importance! Understanding the content and the events leading up to the introduction of a guideline increases professional confidence and adds to the quality of the documents produced. One of the easiest ways to digest this sometimes dry material is to follow expert discussions in journals such as the *Good Clinical Practice Journal*. They provide background on the regulatory, strategic and clinical issues that directly impact clinical studies globally. Discussions on the FDA, ICH or EMA websites during the consultation stages may also be helpful.

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## &gt;&gt;&gt; Medical writing for early clinical development

**Conclusion**

There are many ways of getting into Phase I/IIa medical writing. However I remain unaware of any 'regulatory' writers who venture out on their own directly after leaving university. The best way to gain the requisite professional skills and experience is through on-the-job training inside a pharmaceutical company or CRO.

I've found it stimulating to be involved in this early phase of drug development as new drugs emerge, and new guidelines are published to reflect changes within the industry and the demands of society for increased safety and protection of volunteers. Writing for Phase I/IIa provides opportunity for continuing professional development and the satisfaction of working in a dynamic phase of drug development.

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**Elephants too?**

"Males and females can't understand each other's calls, and the female vocabulary is much larger." This quote relates to elephants and comes from *The Book of Animal Ignorance* by John Mitchinson and John Lloyd.

**Advance notice of the EMWA book group book for discussion at Ljubljana**

At the EMWA Spring conference we will once again be encouraging delegates who are interested to join the EMWA book group to discuss our chosen book. To give advance notice, the book we have chosen to read for the Ljubljana conference (26-30 May 2009) will be *Lucky Man: A Memoir* by Michael J. Fox.

Last year book group discussions took place as a topic on the lunchtime networking tables. The activity is intended to be voluntary and recreational and to be enjoyed by anyone who reads for pleasure and who wants to take part.

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**"More than €4 million were invested ..." or "More than €4 million was invested ..."?**

Adam Jacobs asked me which of the above I would choose, and here I am clearly on the side of the plural.

There are prescriptivists who claim that the €4 m in the above sentence should be regarded as a single item and therefore must always be construed with the singular (like those who insist that 'none' must always be followed by the singular [1]). You can do this if you want, but for more reasonable folk I have a good reason for using the plural: because we say *More than 100 patients have* ... and *More than 5 infusions were* ..., we say *More than €4 million were* ... . And it's as simple as that. Ah! you are saying, but people and infusions are in the plural, and million is in the singular. It is in the singular because it is being used as 'unit', but what you are actually saying is *More than 4 million euros* ... (read it out loud), and it is the euros here that carry the grammatical weight and not the millions.

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## Commentary on 'The world of medical devices: Serving two masters'

by Helen Colquhoun

I read with interest the article comparing the International Organisation for Standardization (ISO) 14155 and International Conference on Harmonization (ICH) Good Clinical Practice (GCP) guidance, written by Art Gertel and Nancy Stark and published in *The Write Stuff*, 17 (2), 2008. There are two ways to approach subjects like this: one is to emphasise the differences, which is what Gertel and Stark did, and one is to emphasise the similarities. In response to the original article, I would like to offer the alternative approach of highlighting similarities.

In my view the two guidance documents (ISO 14155 and ICH GCP) are almost interchangeable, based as they are on the principles of protecting the rights of study participants; documenting the study procedures to be conducted and obtaining ethics approval for these; adequately assessing the risk-benefit of conducting the trial at the outset; assessing safety on an ongoing basis; ensuring the validity of the data so that decisions can reliably be made based on the results. It seems to me that there should be no difference in the protection afforded to participants in a study of a simple, non-invasive medical device compared to that afforded to participants in a trial of an experimental pharmaceutical product with a high risk profile.

So the two guidance documents ought to be very similar—of course, the language may differ a little, but in general their instructions result in very similar courses of action. To suggest, as Gertel and Stark do, that data collected in Europe according to ISO 14155 would not be acceptable to the Food and Drug Administration (FDA) in the United States of America (USA) is an over-statement—for example, data for a Pre-Market Approval (PMA) must be collected according to the Declaration of Helsinki, applicable to the population of the USA, gathered by investigators who are competent, and verifiable by the FDA if necessary. All of these criteria would be met if ISO 14155 is followed.

I agree with Gertel and Stark regarding harmonisation of sponsors' operating procedures—it is possible! My company has one set of harmonised standard operating procedures (SOPs) that cover the whole range of tasks involved in setting up and managing a clinical study, whether that study uses a medical device or a pharmaceutical product, and whether the study is conducted in the USA or in the European Union (EU).

Each SOP has an associated set of working practice documents (WPDs), which describe the 'how to do' based on

the SOPs' 'what to do'. Out of around 55 SOPs, the WPDs differ for device trials and drugs trials for only a handful of SOPs. Most of the differences are related to simple semantics such as counting devices or counting drugs to complete accountability: in some cases we keep it generic by referring to investigational product, although that can sound a little clumsy at times.

The one area where there are significant differences, as pointed out by Gertel and Stark, is adverse event reporting. The rules are different for device and drug trials in the USA and EU with regard to definitions and expedited reporting rules, and they differ for pre- versus post-market devices and drugs. We have advised our clients - and this approach is increasingly being adopted by the major medical device manufacturers - to use the pharmaceutical definitions of a serious adverse event (SAE) as the basis for what the sites report to the sponsor or contract research organisation (CRO) on an expedited basis in both pre- and post-market trials. These definitions are actually very close to the ISO 14155 definitions, but differ from the FDA 'medical device' expedited reporting language.

In theory, there is the possibility of missing an unanticipated adverse device effect (UADE), which would be reportable to the FDA on an expedited basis for an investigational device. In practice we have never seen a UADE that did not also comply with at least one of the six criteria for serious under the pharmaceutical definitions, particularly the general 'catch-all' of 'medically serious'. To ensure that we do not miss any, a rigorous review of adverse events is conducted on at least a monthly basis during the trials.

This approach works well with investigators, even surgeons, whom arguably may have had little or no exposure to drug trials. Almost all investigators seem very familiar with the pharmaceutical SAE definitions and that ensures good compliance with reporting to the sponsor (who then has to work out what is reportable where and in what timescale). We have not found that European investigators struggle at all with adopting the ICH GCP guidance.

One area that Gertel and Stark did not touch on at all was the Global Harmonization Task Force, an organisation devoted to harmonising medical device trial standards and regulatory guidance, in much the same way that ICH does for the pharmaceutical industry. Harmonisation of standards and guidance between territories will eventually

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>>> **Commentary on 'The world of medical devices: Serving two masters'**

facilitate appropriate harmonisation of standards and guidance between medical devices and drugs. The FDA has in some ways led the way, since its own monitoring guidance (for example) does not distinguish between clinical trials of medical devices or drugs. Similarly in the United Kingdom, any trial conducted with the National Health Service (NHS) must be conducted in compliance with the ICH GCP guidance whether it uses a drug or a medical device. What a fuss there was when this was first introduced—until everyone realised that it was not going to make any significant difference!

In conclusion, I would emphasise the similarities rather than the differences between the GCP guidance for medical device trials conducted in the USA and EU, and between the GCP guidance for medical device and drugs trials. By doing so, I suggest that the chances of harmonisation are enhanced—a sensible goal since the underlying principles of conducting any kind of clinical research should be the same.

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## Vital signs

*Dear TWS,*

I've just had the latest copy of *The Write Stuff* delivered, as usual, it's been a very good read.

As a medical writer who makes part of his income as a photographer, I was very interested in Irene Hames' article on digital manipulation [*TWS* 2008 17;(4):164-67]. Although I fully agree with what was said regarding establishing the digital equivalent of a paper trail and the need for full archiving, there are a couple of caveats.

Firstly, just because an original image is film-based doesn't mean that we should be too confident about it. Image manipulation goes back almost as far as photography itself. Oscar Rejlander and Alexander Rodchenko are just two examples of people who used constructed/manipulated images in support of their theories (ideology).

Secondly, the digital format that stores most data, the RAW format needs some "tweaking" to give the correct rendition as a file for printing, this involves some push to contrast and sharpening. Files recorded as jpg already have that push to contrast, sharpening and colour saturation done in-camera and the image data is subject to compression, causing a loss of data.

Thirdly, to be truly good at image manipulation is no trivial matter, it takes a lot of work and if over done, or under done makes an easily spotted mess.

So yes, let's have standards for images and let's be no less thorough with our handling of photographic data than we are with any other form of scientific data, but let's not get too worried about the validity of photographic material just because it's from a digital original.

**Peter Meade**

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### *Author's reply:*

I'm very glad that Peter Meade was interested in my article on the problem of inappropriate manipulation of digital images, and I in return was very interested to see his comments.

I agree that image manipulation isn't a new phenomenon, and also occurred in scientific reporting when image capture was only via photographic film. It was, however, much more difficult to alter images then (and I speak as someone who used to spend many hours in the darkroom in my cell biology research days before digital image capture existed). Most researchers didn't have the expertise to do this, or even if they did, they didn't necessarily have access to a darkroom and the equipment and materials required. Today, virtually every research scientist has access to a computer—it's impossible to work in many areas without one—and the software packages for image storage and manipulation are widely available and affordable. Significant changes to images can result from just a few keystrokes or mouse clicks. There is also, I suspect, a general acceptance that the 'beautification' type of change is all right. This, coupled with the lack of realisation that some changes are wrong, makes the practice potentially widespread and, so, very worrying.

Yes, to make sophisticated alterations takes a lot of work and expertise. But many of the sorts of inappropriate image manipulations editors see aren't "an easily spotted mess". They often look absolutely fine, and only come to light because of the vigilant eye of a reviewer, sometimes coupled with their knowledge of the literature, or because a journal routinely screens images for manipulation—all, a certain proportion randomly, or just those that have raised suspicions. In molecular biology, things such as duplications, rotations, elimination of background features because of excessive contrast adjustment don't leap out of the page/screen until they are subjected to checking.

There will always be those individuals who knowingly act in a way that is fraudulent in both film-based and digital image capture (we can even extend this to artists who fake old masters). As in any other type of fraud, there will be some very skilled practitioners. Our aim when any new technology is introduced is to play a role in trying to educate the research community on what is good practice and where reliable guidelines can be found.

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## Medicines with a 'well established use'

by Iain Colquhoun

**Question:** What do menthol, hexylresorcinol, amylmetacresol, camphor, cetalkonium chloride, turpentine oil (to name just a few from a long list) have in common?

**Answer:** All are drugs with a 'well-established use' (WEU).

The regulatory definition of this will follow, but a literal interpretation is easily justified by considering the dates when some of these compounds were first isolated or developed. For example, menthol and camphor have been widely used for flavouring and medicinal purposes for centuries [1,2], but little studied until the 1920s [3]; both are still widely used in over-the-counter (OTC) products, mostly topical, with 40 products listed for camphor and 109 for menthol [4]. Hexylresorcinol was first studied around 1924 [5], and amylmetacresol around 1930 [6,7]; both are still widely used in antiseptic throat lozenges that have annual worldwide sales of many millions of packs.

This article will describe the regulatory background and guidance available when working with a drug with a WEU. While many generics and herbals may be regarded as drugs with a WEU, their specific requirements vary in some respects from WEU drugs, and they will not be discussed in detail here.

### Regulatory background

As medical writers, most of us are, or have been at some point, involved in writing clinical study reports (CSRs). Clinical studies are most often undertaken to evaluate a new chemical entity or a new indication for an existing compound, sometimes for a high-profile disease condition that may seriously affect the health and welfare of millions of people world-wide. We have ICH guidance available that has been specifically written for this scenario, telling us how we should present the evidence for safety and efficacy from clinical studies in the common technical document (CTD) format.

However, not all drugs on sale are supported by clinical studies: in 2007 the EU pharmaceutical products market (at consumer prices) was estimated to be worth €195,254 million [8], of which €30,652 million (15.7%) was due to the sale of non-prescription OTC products. For many of these products no clinical trial may ever have been carried out. Drugs that have been on the market for many years often have very slim dossiers, at least in the UK, because after The Medicines Act of 1968 came into force, those medicinal products on the market on or before 01 September 1971

were granted 'product licences of right' (PLRs), and for those marketed before 1964 little was required in the way of safety and efficacy data [9]. If a MAH (marketing authorisation holder) now wishes to vary the licence or submit an application for a marketing authorisation (MA) in a new territory, a new dossier is clearly required; but how does one demonstrate the required safety and efficacy of the product without clinical and pre-clinical studies?

If the active compound(s) falls into the category of drugs 'with a well-established use', as many ingredients of older OTC products do, there is an alternative application route that allows the dossier to be based upon a bibliographic review of the published evidence on the safety and efficacy of the actives. The current criteria for WEU status have a convoluted history, but were first defined in Directive 65/65/EEC Article 4.8.(a)(ii), which states (after being amended)[10]:

'The applicant [*for a MA*] shall not be required to provide the results of pharmacological and toxicological tests or the results of clinical trials if he can demonstrate...by detailed references to published scientific literature presented in accordance with the second paragraph of Article 1 of Directive 75/318/EEC [11] that the constituent or constituents of the medicinal product have a well-established medicinal use, with recognised efficacy and an acceptable level of safety;'

Paragraph 2 of Article 1, Directive 75/318/EEC, simply states that

'Where...reference to published data are submitted, the provisions of this Directive (75/318/EEC) shall apply in like manner'.

'Like manner' understandably gave rise to some confusion, and Directive 1999/83/EC [12] specifically sought to clarify the meanings of 'bibliographic applications', 'well-established use' and 'bibliographic reference' by inserting a new Section I in Part 3 of the Annex to Directive 75/318/EEC [11]. Note that the current version of this revised Annex is to be found in Directive 2003/63/EC [13].

Part II of the revised Annex (page 32) [13] finally provided detailed guidance on preparing a 'bibliographic application' and made clear that 'specific rules' must be applied to demonstrate a well-established medicinal use with established safety and efficacy. In essence, the main factors to be taken into account are:

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**>>> Medicines with a 'well established use'**

- a) to establish a well-established medicinal use, the period of time from the first systematic and documented use of that substance as a medicinal product in the European Community must be not be less than one decade;
- b) the documentation should assess all aspects of safety and efficacy, and must include a review of the relevant literature, including pre- and post-marketing studies and published scientific literature including epidemiological studies. All available evidence, both favourable and unfavourable, must be presented, and the use of particular sources of information justified;
- c) if information is missing, justification will be required as to why an acceptable level of safety and/or efficacy can be supported;
- d) the non-clinical and/or clinical overviews must explain the relevance of any data submitted which concern a product different from the product intended for marketing;
- e) post-marketing experience with other products containing the same constituents is of particular importance and applicants should put a special emphasis on this issue.

Two aspects of this advice are sometimes forgotten: firstly, the exhortation to report supportive and unsupportive data, and to justify the data and sources, and secondly the encouragement to include epidemiological studies. The need to report positive and negative data is self-evident, but is frequently given a very light touch: there are different ways of doing this, but my own is to present the 'bad' news first, and conclude with the 'good' news. The lack of rigorous clinical trial data gathered in accordance with Good Clinical Practice (GCP) guidelines is also a common issue: all one can say is that the studies being presented were not conducted to GCP guidelines, but to the standards of the time, and comment upon how this affects the quality of the data.

The mention of observational studies is interesting, given the current tendency to view any correlations arising from them with suspicion! At the risk of being labelled subversive, it is worth pointing out that there is a school of thought that is supportive of observational studies, and I recommend the following short articles, the first being of a more serious nature [14] and the second humorous—but instructive [15], and most elegantly and wittily written!

**The writer's tasks**

For drugs with a WEU the writing tasks are not, in principle, different from more modern drugs licensed via a standard application: updates to old dossiers, new dossiers, variations to existing MAs, renewals to MAs, and periodic safety update reports (PSURs). Of those tasks, that of creating a new dossier is one that occurs whenever the MAH wishes to apply for a MA in a new territory and only has a pre-1971 dossier.

Fortunately the revised Annex provides considerable detail as to the content of the bibliographic CTD, and some points not covered in the Annex are now answered in the current Question and Answer (Q&A) document [16]: for example, two points on which MAHs have been unsure are (i) whether it is adequate to submit only Overviews or are Summaries also required, and (ii) should the data from the references be tabulated? The Q&A document answers both those questions with:

'Summaries may not be necessary for very old, well-known substances, but a proper justification will be required. Overviews always have to be provided.'

The assumption is that tabulations occur predominantly in Summaries, but when reporting old studies, there is a very definite limit to which one can extract data, and I frequently find that an Overview, with some limited tabulation, is the more appropriate way to present the limited data available.

Other requirements may arise: one that demands a particularly thorough and detailed literature search is 'switching' (i.e. changing the legal classification) the class of product licence from prescription only (POM) to pharmacy (P) or from P to general sales list (GSL = OTC). As required in EC Directive 2001/83/EC Article 71[17], before a medicine can be switched from POM to P, it must not:

- present a danger to human health if used without the supervision of a doctor;
- be widely used incorrectly (including risk of abuse), and as a result present a danger to human health;
- require further investigation of activity and/or side-effects;
- be normally prescribed by a doctor for administration by injection.

Before a medicine can be switched from P to GSL it must be shown that it:

- can with reasonable safety be sold or supplied without the supervision of a pharmacist.

Guidance is provided by the MHRA on their web site [18] and in a guidance note [19]. As these products are already licensed, efficacy data are only required when indications, dosages or age ranges differ from the authorised product. It is the safety profile that the application is built around, and for all the reasons discussed above, this again will depend upon evidence from a literature review supporting the MAH's existing safety database.

Recently, the Paediatrics Regulations [20] required MAHs to submit safety and efficacy data relevant to the paediatric population for all marketed products with a paediatric indication. Again, the written submission for many WEU products, whether a CTD overview or an old-style expert statement (still being written although contrary to the available guidance), had to rely upon a detailed literature review supplemented by post-marketing data.



So when, as a medical writer, you are looking to expand your activities, remember that there is more to medical writing than CSRs, and that the humble literature review still has a major role to play! And that role is probably more important for medical devices, but that is another story!

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## A chamber of rogues in drug development

Marcia Angell, former editor of *The New England Journal of Medicine*, begins her review of three books that relate practices of grave concern in drug marketing by referring to Senator Charles Grassley's investigation of the ties between the pharmaceutical industry and academic physicians. She says he has not had to look far and gives her own list of recent ethics transgressions arising from cooperations between opinion leaders and the pharmaceutical industry ([www.nybooks.com/articles/22237](http://www.nybooks.com/articles/22237)).

Senator Grassley's investigation of Wyeth's ghostwriting policies is reported at:

<http://links.mkt1066.com/ctt?kn=49&m=3815998&r=Mjk1Mjg3MDA5MAS2&b=0&j=MTA2MTUyNTAyS0&mt=1&rt=0>

Note also that the 7<sup>th</sup> February 2009 issue of the *BMJ* has a debate presented from different perspectives on how relations with the drug industry, academia and healthcare professionals should be reframed.

## Medicines with a 'well established use'

## Grammarians who rule by whim ...

Jan Freeman of the *Boston Globe* cautions against the above [1] in her 'The Word' column, very much in the vein of the myths about English that I have tried to dispel over the past few years in *TWS*. If you do not know it already, I'm sure that as a *TWS* reader, you will find the column not only entertaining but also informative. The following link leads you to a selection of her recent articles:

[http://www.boston.com/bostonglobe/ideas/jan\\_freeman/](http://www.boston.com/bostonglobe/ideas/jan_freeman/)

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#### Reference:

1. <http://www.iht.com/articles/2008/12/28/opinion/edfreeman.php> accessed 12 January 2009.



## Contribution to the treatment of rare diseases: Orphan drugs

by *Christiane Breithaupt*

Usually the elapsed time from discovering a new molecule until its marketing is lengthy (10 years on average) and expensive (several million to billions of euros). Generally it is also true that for every ten molecules tested, only one is found to show some therapeutic effect. Taking this into consideration and knowing that a number of conditions occur very rarely, it becomes obvious that the cost of developing a therapeutic compound for a rare condition could not be recovered by projected sales. Consequently, pharmaceutical companies are often unwilling to develop such medicinal products for the treatment of rare diseases. Approximately 25% of these occur at birth or during childhood and include infantile spinal muscular atrophy, lysosomal storage disorders, patent ductus arteriosus, familial adenomatous polyposis and cystic fibrosis. Half of the concerned diseases affect both children and adults. Typical rare diseases in adulthood include renal cell carcinoma, glioma and acute myeloid leukaemia. Approximately 5,000 to 8,000 distinct rare diseases have been discovered to date, affecting between 27 and 36 million patients in the European Union (EU).

It became apparent more than 30 years ago that incentives are necessary to encourage the development of medicines for rare conditions. The first country to develop a specific legislation in order to promote the registration of orphan drugs was the USA with its Orphan Drug Act (<http://www.fda.gov/orphan/oda.htm>) in 1983. It was followed 10 years later by Japan's Orphan Drug Regulation. In 1998 Australia released its Orphan Drug Policy and in 1999 the European Union followed with the Regulations (EC) 141/2000 and 847/2000 ([http://ec.europa.eu/enterprise/pharmaceuticals/eudralex/vol1\\_en.htm](http://ec.europa.eu/enterprise/pharmaceuticals/eudralex/vol1_en.htm)).

The European Medicines Agency (EMA) defines an orphan medicinal product as a medicinal product which is:

- Intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition affecting more than 10,000 persons in the EU at the time of submission of the designation application (prevalence criterion), or
- Is intended for the diagnosis, prevention or treatment of a life-threatening, seriously debilitating or serious and chronic condition and, without incentives, it is unlikely that expected sales of the medicinal product would cover the investment in its development, and

- No satisfactory method of diagnosis, prevention or treatment of the condition concerned is authorised, or, if such a method exists, the medicinal product will be of significant benefit to those affected by the condition.<sup>1</sup>

### Prevalence of a disease justifying orphan drug status is defined as follows:

EU: 5 per 10,000 individuals  
(<246,000 patients per year in 2007)

USA: 7.5 per 10,000 individuals  
(<200,000 patients per year)

Japan: 4 per 10,000 individuals  
(<50,000 patients per year)

Australia: 1 per 10,000 individuals  
(<2,000 patients per year)

It is important to know that this prevalence only relates to the country/region in which the application is made, and is not representative of world-wide prevalence. Malaria, for example, is endemic in most tropical countries. Nonetheless, it is seldom seen in Europe and makes an orphan drug designation possible in the EU (3/10,000 inhabitants).

As it is considered that patients with rare conditions deserve the same quality, safety and efficacy in medicinal products as any other patients, it was decided that orphan medicinal products should be submitted and reviewed according to the normal evaluation process. To facilitate marketing of these drugs throughout Europe, sponsors of these products should have the opportunity of obtaining a Community Authorisation; the 'centralised' marketing authorisation procedure was therefore made mandatory. The experience gained in the USA and Japan showed that the strongest incentive for the pharmaceutical industry to invest in the development and marketing of orphan medicinal products is the prospect of obtaining market exclusivity for a specified number of years during which time a significant part of the investment might be recovered. Based on this, the EU decided on a number of different possible incentives:

- **Protocol assistance** (scientific advice) during the product development phase: "The sponsor of an

<sup>1</sup> Regulation (EC) 141/2000.

## Contribution to the treatment of rare diseases: Orphan drugs

orphan medicinal product may, prior to the submission of an application for marketing authorisation, request advice from the Agency on the conduct of the various tests and trials necessary to demonstrate the quality, safety and efficacy of the medicinal product, in accordance with Article 510 of Regulation (EEC) 2309/93.<sup>71</sup> This advice is free of charge.

- **Marketing exclusivity** is granted for 10 years. “The member states shall not accept another application for a marketing authorisation (MA), or grant an MA or accept an application to extend an existing marketing authorisation, for the same therapeutic indication, in respect of a similar medicinal product.”<sup>71</sup> Exceptions are
  - consent of the Marketing Authorisation Holder (MAH) to the second application
  - inability of the sponsor to supply sufficient quantities of the medicinal product
  - a second medicinal product is safer, more effective or otherwise clinically superior.
- **Fee reductions** (100% for pre-authorisation inspections, 50% for new applications for MAs and 50% for post-authorisation activities including annual fees in the first year after granting the MA)
- **EU incentives** (grants)
- **National incentives** (grants, tax reductions).

In 2007, the fund for fee exemptions by the EU amounted up to €6,000,000. In order to benefit from these incentives, the products in question must be registered as orphan medicinal products by the EMEA. This is done by submitting an application requesting orphan designation for the product.

For the purpose of evaluating requests for orphan drug status, the EMEA implemented a Committee for Orphan Medicinal Products (COMP). It consists of representatives from the member states and from the EMEA as well as patients' organisations and (non-voting) European Free Trade Association (EFTA) state and EU Commission representatives as well as general observers. The tasks of the COMP are to advise the Commission on the establishment and development of a policy on orphan medicinal products for the EU; to examine any application to decide if the medicinal product qualifies as an orphan medicinal product; to assist the Commission in liaising internationally on matters relating to orphan medicinal products and liaising with patient support groups; and finally to assist the Commission in creating detailed guidelines.

Before applying for orphan drug status, the sponsor must submit a letter of intent to the Agency. A pre-submission meeting is strongly encouraged. The application is then submitted to the EMEA, validated and forwarded to the COMP. The final opinion of the COMP is forwarded to the EU Commission, who then adopts a decision (for details please refer to <http://www.emea.europa.eu/pdfs/human/comp/1422200en.pdf>). The application may be submitted in parallel in the EU and the United States using the common application form for submissions to the EMEA and the FDA.

All medicinal products for which an orphan drug designation application has been made, are entered into the Community register for orphan medicinal products for human use (<http://ec.europa.eu/enterprise/pharmaceuticals/register/index.htm>). The register lists all products for which orphan drug designation has been applied for regardless of outcome. In July 2008 this register contained 831 applications including 552 medicinal products with orphan drug status of which 42 had obtained an MA. Sponsors of designated orphan medicinal products are required to submit an annual development report to the EMEA (for the respective guideline see <http://www.emea.europa.eu/pdfs/human/comp/018901een.pdf>).

Applying for orphan drug status is possible at any stage during the development of the medicinal product, however this must be prior to the application for marketing authorisation. In case a marketing authorisation application for the same medicinal product (in respect of the same therapeutic indication and submitted by the same sponsor) has been submitted in any Member State within the Community, then this medicinal product is no longer eligible for an orphan drug designation independent of whether the marketing authorisation has been granted or not.

A sponsor may however apply for the designation of a medicinal product as an orphan medicinal product for an already approved medicinal product provided the orphan drug designation concerns an unapproved therapeutic indication. In this case a separate MA covering only the orphan indication must be applied for. Ibuprofen is a good example of a well-known drug which has obtained an MA in 2004 as an orphan drug for the treatment of a congenital heart malformation (patent ductus arteriosus) in infants—a condition affecting approximately 97,900 patients in the EU. Further examples are tabulated below.

Examples of orphan medicinal products:

Indication	Active substance	Patients (EU)
Treatment of patent ductus arteriosus (congenital malformation of the heart)	Ibuprofen (Pedea®)	97,900
Treatment of Mucopolysaccharidosis type II (Hunter-Syndrom)	Idursulfase (Elaprase®)	400
Treatment of N-acetylglutamate synthetase deficiency	N-carbamyl-L-glutamic acid (Carbaglu®)	46
Treatment of acute lymphoblastic leukaemia (most common form of leukaemia in children)	Nelarabine (Atriance®)	51,000
Treatment of renal cell carcinoma	Temsirolimus (Torisel®)	115,500
Treatment of anthracycline extravasations (accidental extravasal application of anthracycline)	Dexrazoxane (Savene®)	152

A source for obtaining additional information both on orphan medicinal products as well as on rare diseases is Orphanet: <http://www.orpha.net>. Orphanet was established

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>>> **Contribution to the treatment of rare diseases: Orphan drugs**

in 1997 by the French Ministry of Health and the INSERM (Institut National de la Santé et de la Recherche Médicale). Both agencies are still funding the core project. Its aim is to contribute to the improvement of the diagnosis, care and treatment of patients with rare diseases. Orphanet includes a:

- Professional Encyclopaedia, which is expert-authored and peer-reviewed
- Patient Encyclopaedia and
- Directory of expert services. This Directory includes information on relevant clinics, clinical laboratories, research activities and patient organisations.

The European Commission is actually funding the encyclopaedia and the collection of data in European countries.

More information on rare diseases is provided by the European Organisation for Rare Diseases (Eurordis): <http://www.eurordis.org>.

As the procedure of development and submission of orphan drugs should follow that of “normal” drugs as close as possible, the same guidelines apply when developing the respective documents (e.g. ICH E3, E6). The EU application form, general information, as well as multiple COMP guidelines (e.g. on calculating prevalence, on significant benefits or on Protocol Assistance) can be found at <http://www.emea.europa.eu/htms/human/orphans/guidance.htm>.

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Just in case you didn't know! Butter pack discovered by James Visanji at the EMWA conference (20-22 November 2008) in the Holiday Inn Hotel, London.

### **More information should be given with 'adapted' figures and tables**

The data contained in a figure or table is not protected by copyright. It is only the artwork of the presentation in the figure or table that is protected.

A question posed on the WAME listserver [<http://www.wame.org/resources/wame-listserve-discussion/>] asked to whom you should apply for copyright permission if you want to reproduce an 'adapted figure'. The answer to this question depends on many things you might not know, e.g. who holds the original copyright, who adapted the figure/table, and the extent of the rights that were granted for the adaptation. Copyright might be held by the author, journal or art designer who drew the figure of the original or adapted figure/table. There is also the possibility that the permission granted for the 'adaptation' had in fact never been needed. An example given was when data from a table are used to create a pie graph.

What the discussion really brought out was that the phrase 'figure adapted from' is insufficient and can be misleading when no substantive change has been made.

Doug Altman added an important contribution to the discussion which is reproduced below with his kind permission:

"The terms 'adapted' or 'modified' are used frequently in journal articles. These adjectives are not just used for figures but more often to scales and checklists (e.g. modified SF-36) and also within text (e.g. 'modified intent to treat analysis'). In all these cases there is often no clue as to the extent or nature of the modification. In the case of a figure, for example, the adaptation might be to the formatting (probably unimportant) or to the information content (potentially critical)—one surely needs to know which.

The terms 'adapted' or 'modified' alone are never adequate. When I see a 'modified' checklist or a 'modified' quality of life instrument I need to know exactly how (and why) the modification was made; I need to judge whether this modification was legitimate.

Journals should require authors to be specific about the way(s) in which the material was altered from the source, or give a reference to where this information can be found. Authors should not be allowed to hide behind such undefined terms."



## Techno freaks: Medical writers and independent imaging review

by Claire Gillow

At the 2008 European Medical Writers Association (EMWA) conference in Barcelona, I felt like a bit of a (techno) freak. Whilst other medical writers described their jobs to nodding heads, my position as a medical writer for an imaging contract research organisation (CRO), either ignited great curiosity, or was dismissed with a confused shrug. In this article I would like to shed light on independent review and the benefits it brings to imaging analysis in clinical trials. I will describe the medical writer's role in this process, and the most important document of the independent review: The Independent Review Charter (IRC).

### History of imaging in clinical trials

The benefits of using imaging technologies such as computed tomography (CT), magnetic resonance imaging (MRI), and positron emission tomography (PET) in clinical trials are well established. Imaging is non-invasive, and can yield surrogate endpoints quickly, decreasing the time and expense of drug development.

In the past, imaging-related endpoints were derived only from assessments by site radiologists directly involved with the study. As technologies improved, sponsors increasingly relied on imaging for both safety and efficacy determinations and regulatory authorities such as the Food and Drug Administration (FDA) began to question the objectivity and validity of results. At sites, there are several areas of inherent bias causing concern: when a large number of sites are involved in large-scale trials, variability in availability of up-to-date scanners and imaging acquisition capabilities exists. This can result in imaging being acquired in a non-standardised way, significantly affecting measurements and assessments made. Site knowledge of treatment arm, patient information and clinical or laboratory data may affect the objective interpretation of imaging. Reviewer methodology and assessments are not carried out in a standardised way and there is no secure method for recording assessments.

### History of independent review

In response, independent imaging CROs evolved to organise centralised reviews of imaging, to reduce areas of bias and improve the validity of imaging-based results. The feedback from authorities was positive. Current FDA thinking is; *"We recommend that Phase 3 trials include off-site image evaluations that are performed at a limited number of sites (or preferably at a centralized site). In such off-site evaluations, it is usually easier to control factors that*

*can compromise the integrity of the blinded image evaluations and to ensure that the blinded readers perform their image evaluations independently of other image evaluations"* [1]. Independent review results are more reproducible and reliable than site assessments, and independent review may yield unexpected benefits to the public: independent reviewers have reported that due to the exposure and training they receive, their ability to identify and interpret imaging disease characteristics has been enhanced [2].

### Imaging standardisation and site qualification

Imaging CROs develop study-specific Imaging Acquisition Guidelines (IAGs), and send them to sites. IAGs describe the imaging and imaging parameters required, and adherence to IAGs standardises imaging acquisition across multiple investigator sites. Sites must complete a site survey which captures the number and type of scanners, desired mode of image transmittal, image storage capability and the ability of sites to follow the study-specific IAGs. Sites then carry out a dummy run or test transfer, using a 'phantom' or simulated patient. The results of the site survey and test transfer determine whether sites qualify for study participation.

### Quality control

Imaging received at the independent imaging CRO passes through a rigorous quality control system to ensure that imaging parameters, modalities and anatomy are correct. When deviations are found, timely feedback to sites enables errors to be corrected, and future problems avoided.

### Blinding of imaging

Following quality control, imaging is prepared by the imaging CRO for independent review. This may require 'blinding', involving the masking/removal of information which could bias the reviewers, e.g. demographic patient identifiers, site markings, dates of the imaging and indicators of treatment arm. Conversion to the required imaging format, e.g. laser digitisation, may be carried out. The imaging is then ready for independent review.

### Independent reviewers

Imaging CROs have a large pool of reviewers who are experts in their field, and are usually board-certified or equivalent. The reviewers are 'independent' because they have no vested interest in the outcome of the trial, are

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## >>> Techno freaks: Medical writers and independent imaging review

unconnected with the sponsor, and the data they review has been masked of factors described above, which may bias the outcome. The FDA states they are “*readers that are completely unaware of findings of other readers (including findings of other blinded readers and onsite investigators*” [1].

### Independent review sequence, methodology, and assessments

The sequence, methodology and assessments of each review are highly study-specific and will be prospectively discussed between the sponsor and medical writer and detailed in the IRC. For pivotal trials, typically each case will be reviewed initially by two primary radiologists, independently of each other. When one or more overall timepoint assessment(s) differ between the two primary radiologists, assessment by a third radiologist, the adjudicator, is triggered. The adjudicator will agree with all of the timepoint assessments of only one of the primary radiologists. This ‘double read with adjudication’ process improves the validity of results. Primary radiologists are carefully selected, well trained, and tested on simulated cases before the review begins, but discrepancies do occur. It’s the adjudicator’s job to come to an agreement with one of the primary radiologists. The adjudicator does not provide a third assessment as this would defeat the purpose of a double review, reducing the review once again to that of a single reviewer.

During the initial timepoint review, the radiologists are blinded to imaging dates so won’t know which scans were unscheduled. This reduces bias as unscheduled scans are often acquired for suspected progression. The radiologists are also blinded to pending timepoints as seeing how a case develops could bias their interpretation of earlier timepoints. However, following the initial blinded review, a retrospective, global review is now recommended: radiologists will have read-only access to all of their initial assessments, may view helpful clinical information such as cytology results, and can update any of their previous assessments. More detailed clinical and laboratory data may then be presented to an independent oncologist, who will review all of the imaging assessments, see the imaging dates, and may review the imaging. The oncologist will provide the final independent review assessment by providing date of progression, date of first response, date of first complete response and last date of stable disease. This is known as ‘progressive unblinding’ and helps address the need for a comprehensive global review of all information whilst maintaining the objectivity of the initial, blinded radiology review.

In pivotal studies, quality-assurance secondary reviews are carried out, the results of which can be used in calculations of reviewer variability. There are two types of variability tested:

- Intra-reviewer variability tests the variability in a single reviewer’s assessment over time. It is tested by the re-insertion of cases already reviewed into a reviewer’s queue, to observe if they record the same assessments again.
- Inter-reviewer variability is tested by ensuring all participating reviewers read a percentage of the same cases, to compare their assessments. However, there are no published figures for an acceptable range of variability, which can vary significantly depending on the type of review and indication.

### The application / electronic analysis system

The application used by reviewers to record results is built specifically for the study according to International Conference on Harmonization (ICH) guidelines. Reviewers cannot access pending timepoints until they have reviewed and signed off on the present one. This ‘locks’ their assessments so neither they nor others can change them. Various soft and hard edit checks are built-in to ensure that gross or accidental reviewer error is minimised, while providing the reviewer with the freedom to record the assessments they want.

### Investigator meetings

Project managers and the medical owner (usually a radiologist) from the imaging CRO will meet with site investigators and site radiologists to describe how imaging should be acquired and how independent reviewers will carry out their assessments. This helps minimise discrepancy between assessments made at sites and the independent reviewers.

### Medical writers and the IRC

The most important role of the medical writer is to write the IRC, the ‘protocol of imaging’. The IRC is the legal documentation of the review, and should be completed and signed before the first patient comes on study. The FDA state that “*An IRC can minimize bias in radiographic interpretation of the radiological findings and independent adjudication of assessments*” [3]. The IRC is the ‘contract’ between sponsor and imaging CRO as to how the review will be conducted. The independent reviewers are trained according to IRC content, and regulatory authorities will review the IRC in studies for submission. When a special protocol assessment (SPA) is planned prior to the beginning of a study, the FDA recommend that the IRC is submitted for review along with the protocol and statistical analysis plan.

The medical writer will begin by extracting information regarding imaging schedule, assessments and criteria from the protocol. Potential problems regarding image acquisition and analysis may be discovered at this stage and lead to a protocol update. The writer will hold an IRC meeting with the sponsor to discuss how the independent review will be carried out. Following this, medical writers may meet with several imaging CRO departments; medical, operational, application development and quality. This ensures the needs of the client are met within Good Clinical Practice (GCP) ICH guidelines and current FDA recommendations for imaging analysis.



## Techno freaks: Medical writers and independent imaging review

The IRC is a 40-50 page document written in three drafts, each reviewed by the imaging CRO team and the sponsor. On average it takes 2-3 months to write, but timelines can vary considerably depending on the complexity and urgency of the study. Accelerated timelines are often required when an SPA is planned, or when independent confirmation of screening criteria is required for sponsor patient eligibility decisions.

Similar to clinical study protocols, there is no published guideline on required IRC content and lay-out. However, a meeting between the FDA, sponsor, and imaging CRO representatives at the Drug Information Association Harmonization Initiative last year, yielded an initial, suggested IRC framework.

A typical content of most IRCs is outlined in a poster prepared by my colleagues at Perceptive Informatics for an oral presentation (see Box, [4]).

Once the IRC is signed, medical writers may be involved in writing user requirements, the first step in the building of the application. This document, also signed by the sponsor, describes the analysis form that will be used during the central review of imaging, the data collected, and rules that will be implemented on the form. Once the application is built, medical writers are involved in testing it and will take screenshots for the reviewer manual: a handbook written by medical writers containing step-by-step instructions for the reviewers on how to record their assessments in the application.

At Perceptive Informatics, medical writers work across all fields; oncology, neurology, cardiology and musculoskeletal studies, exposing them to a large array of criteria, methodologies and assessments. They have an important coordinating role between medical, operations, quality, and application development departments. Because of this mul-

tidimensional perspective and range of experience, they are called on to write company stances and standard operating procedures, and are invaluable team members.

### The future of imaging

As the recent surge in early phase imaging shows, new and improved technologies are developing all the time. This will not only improve safety but may flag early indicators of efficacy. With sites recruited globally and India and China developing rapidly, standardisation of imaging acquisition and interpretation is vital. Imaging CROs are experts at ensuring these standards are met. Independent imaging reviews are increasing in their complexity and the need for a well-written IRC is central to success, reflected in the increased recruitment of medical writers by imaging CROs.

With this in mind, perhaps at the next EMWA conference, I won't be the only (techno) freak!

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1. U.S. Department of Health and Human Services Food and Drug Administration Center for Drug Evaluation and Research (CDER) Center for Biologics Evaluation and Research (CBER) June 2004 Clinical Medical, Guidance for Industry, Developing Medical Imaging Drug and Biological Products Part 3: Design, Analysis, and Interpretation of Clinical Studies.
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3. U.S. Department of Health and Human Services Food and Drug Administration, CDER, CBER, Guidance for Industry Clinical Trial Endpoints for the Approval of Cancer Drugs and Biologics.
4. KH Williams, SL Chica, BA Chandler, JM Hicks, The independent Review Charter (IRC): Purpose, Essential Features and Development, poster presented at 6<sup>th</sup> Annual DIA Workshop for Medical/Technical Writing and Document Preparation, October 23-25, 2005 Washington, DC.

### Necessary Components of the IRC

#### SEQUENCE OF INDEPENDENT REVIEW

- When will image be reviewed
- Order of reviewers (i.e. radiology followed by oncology)

#### REQUIRED INDEPENDENT REVIEWER INTERPRETATIONS

- Type and description of assessments to be provided by the reviewer
- Comparisons to be made between time points, if applicable
- Information to be recorded on the analysis form

#### LOCKING OF INDEPENDENT ASSESSMENTS

- How the analysis forms will be locked to prevent modifications
- Method for handling situations not specifically addressed in the charter

#### ASSESSMENT CRITERIA

- Identifies the assessment criteria used by the reviewers
- Describes any proposed modification to the data
- Provides a rationale for the modifications

#### SELECTION AND QUALIFICATION OF INDEPENDENT REVIEWERS

- How will the independent reviewers be selected and required qualifications (i.e. no financial interest, no participation in the study, no association with the sponsor)
- Training of the independent reviewers for the purpose of reviewing images and data for the clinical study

#### INTRODUCTION

- Defines the IRC scope and purpose
- Provides an overview of the purpose

#### STUDY BACKGROUND

- Introduces the study
- Describes relevant objectives/endpoints

#### QUALITY ASSESSMENT

- Define the quality control (QC) assessment for images and clinical data

#### IMAGE ARCHIVE

- Defines the types of images received at the core lab and schedule for expected images

#### DEVIATIONS

- Defines how deviations are captured and resolved

#### BLINDING AND LABELING OF DATA

- Describes what the reviewer will be blinded to (i.e. subject confidential identifiers, site interpretations)
- Identifies what will be masked on images and clinical data
- Defines the process for compliance with local regulatory laws

#### METHODOLOGY FOR DATA PRESENTATION

- Order in which images will be presented (i.e. random, sequential)
- Format in which images will be presented (i.e. electronic, hardcopy)
- Method for presentation of analysis forms to reviewers



# Successful abstract writing: An essential skill for medical writers

by Munise Ohri and Keith Dawes



**Abstract (noun):** *A summary or abridgement; that part or thing which represents the essence.*

*Chambers Concise Dictionary*

Normally, an abstract is a summary of a piece of scientific / medical research. It describes the reason for the research, the methods used, the key results and their implications. It is not an overestimation to judge the scientific abstract as ‘the most important part of a manuscript or document’ because it is read by many more people than the entire article itself, and it frequently serves as a reader’s only exposure to the work being described. For manuscripts submitted to scientific journals, a first review of the abstract could be crucial in determining whether papers are sent out for peer review. For work submitted to a scientific congress, the abstract may determine whether a person is invited to give a poster or oral presentation. Therefore abstract writing is an important skill for medical writers to acquire. This skill can be used in many areas of our work: the preparation of clinical study report synopses, summarising scientific evidence in an Investigator’s brochure, preparing regulatory summaries for the common technical document, and describing key data to a client. A well-written abstract should capture the reader’s interest, is an advertisement for the research and the authors, and enables effective retrieval of the original document. Abstracting can be difficult—you need to be able to identify the information to be included and summarise it in 200 words or so. Experience obviously helps, but writing a good abstract can be accomplished by following some simple steps:

## Read the original document / research, identify the key content for the abstract

As abstracts represent a concise summary of a completed manuscript or document, they should be prepared last, after the document is final and you have had the chance to review the document carefully. The key content of the abstract and the conclusions need to be agreed upon in conjunction with other authors. The key results that support any conclusions will also need to be identified and included in the final abstract.

## Consult any abstract guidelines / specifications

Instructions-to-authors for scientific journals usually contain some guidance for abstract preparation. Conferences also provide their own specifications for abstracts, and abstracts that do not comply with these guidelines / specifications are normally rejected. Before writing, you should consult any available guidelines and possibly review previously published abstracts in the same journal or publication

in order to ‘get a feel’ for overall style and content. Many journals require abstracts to have a structured content, based on the full manuscript (i.e. Background (or Objectives) / Methods / Results / Conclusions), and there is normally a limited word count (for example a maximum of 200 words).

## Write the abstract following any guidelines / manuscript style recommendations

Obviously the most important step is writing the abstract, and you should allow enough time for this. Rushing an abstract and not considering its content can lead to problems, and mistakes in a manuscript abstract will not impress editors or reviewers. You should adopt a similar style and wording as used for the main manuscript and you must not include information that is not included in the manuscript, as the abstract is meant to be a summary of the document.

The opening sentences of the abstract (the Background / Objectives) should ideally describe the reasons for the study: why the research was performed (the hypothesis or research question to be answered) and indicate its potential importance. This is the scene setter, highlighting what is novel about the research conducted. These sentences can normally be taken directly from the introduction of the completed manuscript with little or no alteration.

For example: ‘Drug X is a novel receptor blocker which has shown promise as a treatment for high blood pressure (BP). In small scale, explorative studies significant reductions in BP have been observed, with little or no side effects. We have investigated the BP lowering effects of drug X in a large patient population’.

This should be followed by a brief description of the study methods (Methods). Describe whether the study was conducted in animals, volunteers, or patients, if it was a controlled, randomised trial, along with brief descriptions of the test product / treatment regimen (including doses given if applicable), any interventions, endpoints (primary or secondary), equipment / tests used and any key statistical procedures used.

For example: ‘This was a double-blind, randomised clinical trial performed in 240 patients newly diagnosed with mild to moderate essential hypertension, exposed to either placebo, 10 mg or 20 mg of drug X per day for 6 weeks. Daily BP assessments were made and the primary endpoint was the percentage of responders at week 6 defined as a BP goal of <140 / 90 mmHg. Secondary endpoints were....’

You should only expand the ‘Methods’ section if novel or unusual procedures were used or if additional information is crucial to the interpretation of data. Given the limitations

## Successful abstract writing: An essential skill for medical writers

on word count it may not be possible to include all methodological descriptions; in this case it should be sufficient to briefly mention those methods that provide the key results.

The key results should follow (Results), giving the main findings of the research, including results for any described primary or secondary endpoints. It is best to give the number of observations for each result (i.e. the number of patients supplying data for any primary or secondary endpoints). The results of statistical tests should be described, as well as any key safety or toxicological findings. Do not present results if the method for obtaining them was not described in the 'Methods' section.

For example: *'The percentage of BP responders at week 6 was 5% (4 of 80 patients), 55% (44 of 80 patients) and 85% (68 of 80 patients) with placebo, 10 mg ( $p < 0.001$ ) or 20 mg of drug X ( $p < 0.001$ ). For the secondary endpoints....[Provide results]. Both doses of drug X were well tolerated, and the adverse events reported were similar to placebo.'*

Lastly, one or two sentences should present the conclusions of the study. You should avoid repeating the title of the document in the conclusions, and the abstract conclusions should match the conclusions of the full manuscript / document. If possible, the conclusions should disclose how the research advances current scientific knowledge or medical treatment.

For example: *'Drug X appears to be an effective treatment for high BP and it is likely to make a significant contribution to treating this condition. Further studies are required comparing Drug X with other BP lowering medication.'*

When writing the abstract, it is important that you keep it simple, with clear and concise sentences. Readability is very important and you should avoid using jargon that is not widely understood. Also consider your target audience—remember abstracts 'sell' your manuscript to the reader, encouraging them to look at the whole manuscript. Try to avoid using excessive abbreviations to cut the word count, as this does not improve readability. For conference abstracts, you can make the abstract more appealing by using visual aids such as graphs, tables, and photographs. Key references can be included in conference abstracts but must be avoided in manuscript abstracts. As a rule, the background, methods, and results sections are written in the past tense, whereas conclusions are written in the present tense.

It is also useful to keep key searchable terms in mind when you are writing the abstract. Key words are vital for the correct indexing of the abstract and for its retrieval by readers using electronic information retrieval systems. This is very important if you want your research read by the correct audience. Also abstracts should be stand-alone documents—many manuscript abstracts are viewed / published independently of the manuscript article and they should also allow for someone browsing through a database of abstracts to determine the relevance of the manuscript article and its key findings.

### Check the abstract carefully

As well as checking your abstract for adherence to word counts and guidelines, you need to check readability, spelling, punctuation, and grammar. You should remove

any unnecessary information, as it does not matter if the abstract is shorter than the maximum word count. Lastly, check the abstract against the original document for correctness. Make sure that any results reported in the abstract are identical to those in the manuscript, and that the wording matches between the abstract and the manuscript / document.

### Allow author review and make appropriate corrections

All the authors of a manuscript or document must be given the opportunity to review the abstract, and any corrections and ambiguities need to be clarified through review and feedback. Authors often tend to add information to abstracts, increasing the word count as they go along. Also contradictory comments—or additions by the senior author(s)—need to be dealt with. Providing guidance to authors concerning word counts can prevent excessive additions, and clear planning of content and reviews prior to writing speeds up the review process. Identifying senior author(s) as reviewers, with planned meetings to consolidate comments, is also helpful.

As a summary, abstract writing is a crucial skill for medical writers and is one that can be applied in many areas of our everyday jobs. Following some simple steps, which can be used in almost all forms of abstracting, can make the process easier, less error prone, and faster. Abstracts are an advertisement for the research described and they can have a major impact on successful publication. Their importance to the scientific community in an information-overloaded age should not be underestimated.

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## Additional guidance:

The Uniform Requirements for Manuscripts Submitted to Biomedical Journals (developed by the International Committee of Medical Journal Editors, <http://www.icmje.org>) has a short section on abstracts; in addition the CONSORT (Consolidated Standards of Reporting Trials) Group has extended the current CONSORT Statement to cover abstracts [1,2].

The CONSORT guidelines list essential items for authors to consider for their abstract, and have been incorporated into the instructions-to-authors for *The Lancet*. Beware, it may not be possible to include all the items listed by CONSORT due to word limits and the requirements of individual journals (or conference requirements). However, it is wise to read these guidelines and take some messages from them!

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## Will avian influenza lead to a human pandemic?

by Robert Kahn

The United Kingdom Government recently publicised its National Risk Register. The “gravest threat to UK security” was not terrorism or a natural disaster but an influenza pandemic, where one-third to one half of the population might become sick and possibly 750,000 people would die [1]. Although a human influenza pandemic would probably begin in Southeast Asia, such a pandemic would be likely to spread the fastest in the United Kingdom and the Netherlands, because of their high population density and international airports [2].

This article offers an assessment of the possibility of avian influenza leading to a human pandemic, with easily accessed websites that provide further information. As medical writers, many of us are already aware of the scientific complexities inherent in trying to evaluate the possible threat of a pandemic. Clearly, the available evidence is subject to different interpretations. We face the twin dangers of ignorance and panic: to do nothing is to succumb to ignorance, to become alarmist is to encourage panic. As medical writers we have the medical knowledge and the ability to write that places us in a privileged position, but with privilege comes responsibility.

### What is risk assessment?

To evaluate the possibility of a human influenza pandemic, it is helpful to begin with a risk assessment that considers both the likelihood of a pandemic and its possible consequences. The risk assessment matrix in the box below sets out two scales—the likelihood of an event from being ‘Almost certain’ to being ‘Rare’, along with its consequences from ‘Catastrophic’ to ‘Insignificant’.

Because there have been three influenza pandemics in each of the 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> centuries, the consensus among risk consultants is that the likelihood of an influenza pandemic is either ‘Almost certain’ or ‘Likely’. Furthermore, the consequences of such a pandemic are a degree of risk that is likely to be either ‘Major’ or ‘Catastrophic’. However, as considered below, it may be possible to develop an effective vaccine that changes both the likelihood and the degree of risk of a pandemic.

A risk assessment matrix [3]

Consequences: Degree of risk					
Likelihood	↓				
↓	Insignificant	Minor	Moderate	Major	Catastrophic
Almost certain	High	High	Extreme	Extreme	Extreme
Likely	Moderate	High	High	Extreme	Extreme
Moderately likely	Low	Moderate	High	Extreme	Extreme
Unlikely	Low	Low	Moderate	High	Extreme
Rare	Low	Low	Moderate	High	High

### Integrating human and veterinary medicine

There is increasing awareness that human and animal health is inextricably linked, as postulated by the ‘One Health’ initiative [4]. Since 1997 avian influenza has killed or led to the slaughter of some 500 million chickens and turkeys throughout the world [5]. From 1940 to 2004, some 60 per cent of the emerging disease outbreaks world-wide among humans have begun in animals [6]. HIV/AIDS, Ebola Virus, West Nile Virus and SARS (Severe Acute Respiratory Syndrome), as well as H5N1 influenza, are a few significant examples [7]. New evidence suggests that the spread of the H5N1 avian influenza virus in domestic and commercial poultry throughout Southeast Asia is being spread by free-grazing domestic ducks in highly populated areas that grow a large amount of rice [8]. The greater the density of ducks, people and rice, the greater the risk. Poor hygiene in commercial poultry farming and the sale of live poultry in local markets are also contributory factors to the spread of avian influenza [9].

According to regularly updated information from the World Health Organization (WHO), 245 people have died from the H5N1 influenza virus since 2003 [10]. Over 90 per cent of the deaths have been in five countries—Indonesia, Viet Nam, Egypt, China and Thailand. This data supports the prediction of the Lowy Institute in Sydney, Australia that if an influenza pandemic does occur, 95 per cent of the deaths would be in developing countries [11]. Almost all of these deaths have been among people who have been intensively exposed to diseased poultry, although there have been a few family clusters in which one member of a family was infected by poultry and then passed on the disease to other members of the family. However, the number of human deaths has been limited, because the H5N1 virus needs to attach itself to the lower respiratory tract in humans, which is difficult for the present virus to reach [12].

### Can an influenza pandemic be stopped?

Viruses are constantly changing. The H5N1 virus could mutate into a form that readily passes from human to human in a pattern of sustained transmission. This might happen in a direct transmission from an animal to a human, or through an intermediary such as a pig that served as a mixing vessel for both human and avian viruses [13]. If a human being (or a pig) that already had an influenza virus came in contact with the H5N1 avian influenza virus, the

## Will avian influenza lead to a human pandemic?

possibility of creating a new strain of virus would increase dramatically. Therefore, it is important for those at risk of influenza, those who have sustained contact with poultry, lab workers, and veterinarians to have the annual 'flu shot' for seasonal influenza. Also, the one-off shot against pneumonia is very helpful, because during a pandemic the major cause of death is secondary bacterial pneumonia, as happened during the pandemic of 1918-1920 [14]. However, as there can be harmful side effects for a few people with either pneumonia shot, careful medical advice is necessary.

These personal precautions, as well as careful hygiene (especially regular hand washing), are important [15]. However, whether a pandemic can be stopped depends to a considerable extent on early detection and identification of the new virus, as well as immediate isolation of any small clusters of initial human cases. Given the ubiquity of airplane travel, bird smuggling and general global mobility, a new virus would be more likely to spread by air travel than by wild birds. It could be only a few weeks before a new virus formed (probably somewhere in Southeast Asia) and then arrived in a new location (via an international airport). The virus would then spread community by community in waves throughout a country, probably in two to three waves over a period of one to two years. Whether such global spread could be prevented by immediate containment in the country of origin is not clear at this time, and depends to a considerable extent on effective surveillance, immediate lab analysis of virus samples, further scientific research and pharmaceutical initiatives. As the years pass, there is more and more chance of stopping a pandemic, because understanding of the nature of avian viruses is improving.

### Antivirals, vaccines and new research

Many governments and international organisations are stockpiling antivirals, such as oseltamivir (Tamiflu) and zanamivir (inhaled as Relenza). However, there is increasing evidence of resistance developing against Tamiflu [16]. Furthermore, to be effective these antivirals must be taken as soon as possible after the onset of illness [17]. Although antivirals might be important in mitigating the impact of a serious pandemic, the real effort to stop a pandemic rightly centres on producing new vaccines.

WHO has estimated that it would take six months to one year to develop and manufacture a vaccine that protects against the H5N1 virus, because it would be necessary to identify the precise strain of the virus that began the pandemic before developing the vaccine [18]. However, there is now a possibility of moving away from the sixty-year-old technique of egg-based vaccine technology toward a whole-virus vaccine developed from cell culture—a process that would lead to faster manufacturing of a vaccine [19]. Furthermore, a pre-pandemic vaccine (Prepandrix) has been clinically tested and granted marketing authorisation in Europe [20]. If these and other research initiatives prove successful, a vaccine would soon

be available before the pandemic strikes, rather than months after the particular strain of an influenza A virus had been identified.

### Business continuity planning for an influenza pandemic

The earlier focus in this article on risk assessment needs to be followed by sustained business continuity planning, once there is some understanding of the possible risks of an influenza pandemic. Medical communications agencies and pharmaceutical firms, like other businesses, must plan for the possibility of emergencies, disruptions and staff absences [21]. With pandemic influenza, approximately one-third to one-half of the staff is likely to be absent over an 18-month period, so considerable cross training will be necessary to empower people to cover for those who are absent. In working out risk management plans and exercises, it is worth considering that those who assess the risks should not have sole responsibility for managing those risks, because if someone knows they are going to have to deal with risk management, they may have a tendency to assume that the likelihood and consequences of a particular risk are low.

Some business analysts are hopeful that any pandemic will be mild [22]. Others believe that a pandemic is inevitable, its effects will be disruptive, but businesses can mitigate the impact [23]. Comprehensive information and advice is available from the University of Minnesota's Center for Infectious Disease Research and Policy at their website, [www.cidrap.umn.edu](http://www.cidrap.umn.edu). A further source of advice on both risk assessment and risk management is Dr Peter Sandman at: [www.psandman.com](http://www.psandman.com).

### Will there be a pandemic? The jury is out

Many scientists believe that "it is not a question of if, but of when an influenza pandemic will begin" [24]. However, the Health Editor of The Observer, Jo Revill has pointed out: "Never before have we had so much early warning about the spread of an influenza virus—and never before have we had so much opportunity to prepare for it, using all our resources and our common sense" [25]. For a balanced, sensible approach, see the website maintained by the US Government's Department of Health & Human Services [26].

During the last great influenza pandemic in 1918-1920, different cities prepared in different ways; and those communities that encouraged social distancing (i.e. staying at home and away from mass gatherings) experienced much lower rates of illness and death [27]. Based on that experience, there are a number of books available on the practicalities of facing an influenza pandemic [28]. Thinking through how and where families and friends will be gathered together should take place before a pandemic begins, because calm, rational decision-making in the midst of a crisis is extremely difficult [29]. Whatever our different therapy areas, employers, free-lance commitments and

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## &gt;&gt;&gt; Will avian influenza lead to a human pandemic?

home nations, we need to understand the scientific complexities of avian influenza. On the question of whether avian influenza will lead to pandemic influenza, the jury is out. Even if the present avian influenza virus does change into a virus that will transmit effectively from human to human, medical research might lead to an effective vaccine that will stop the virus. Time is on our side.

**Robert Kahn**

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**References:**

Pandemic influenza is a complex, interdisciplinary topic that requires consideration of a number of issues. This article together with its reference list can be accessed in the journal section of [www.emwa.org](http://www.emwa.org). The web-based references listed in the online reference list offer an on-line learning course about five aspects of pandemic influenza:

- (1) **Risk assessment and risk management** is considered in references 1, 2, 3, 21, 22 and 23.
- (2) **Links between human and animal health** are in references 4, 5, 6, 7 and 8.
- (3) **Personal preparation** is in references 9, 14, 15, 17, 25, 26, 27, 28 and 29.
- (4) **Possible consequences of a pandemic** are in references 10 and 11.
- (5) **Various viruses, anti-virals and vaccines** are in references 12, 13, 16, 18, 19 and 20.

**Meet the EMWA Executive Committee candidates... 2009**

EMWA's Executive Committee will be elected based on voting by members present at the Annual General Meeting in Ljubljana on 27 May 2009. If you will not be present you may also vote by proxy in advance by sending your vote to EMWA's Head Office ([onfo@emwa.org](mailto:onfo@emwa.org)) before 21 May 2009 or appoint another EMWA member as your proxy and provide that member with your voting form to take to the AGM.

**For the position of Public Relations Officer:****Andrea Palluch**

Although I'm a relatively fresh EMWA member, having joined in 2005, I believe I fit the motto EMWA most like to promote: "an organisation run for and by its members". With this in mind, and having been a clinical research associate for 6 years, I thought it would be great if EMWA was to join forces with the Institute of Clinical Research (ICR). EMWA received the idea very well and we translated it into the first ICR-EMWA joint symposium held in London in 2008. It was such a successful event that it is now in its second year and counting! I volunteered to run a workshop (pharmacogenomics) which will be offered for the first time in the spring conference 2009. I would also like to bring to life EMWA's initiative of having mentors/buddies for newcomers at our conferences. I'm very outgoing, proactive, and like interacting with people and learning from them. EMWA is growing fast and I want to help in promoting this highly professional organisation. My secret master plan is to promote EMWA in my native country, Brazil (and perhaps other countries in South America), so that they too can benefit from the wealth of opportunities, knowledge and networking offered by EMWA.



and I was involved in a number of committees for the conference dedicated to translation in Barcelona (2008).

My academic qualifications include an MSc in Bioengineering and an MA in Linguistics. With over 12 years experience in the Erasmus programmes and devising self learning materials and programmes for medic and scientific students, I also have a strong background in education and international project management. I specialised in self learning, e-communication and life long learning. I have been involved in translation of medical documentation for 8 years and I created CINETIQUE Translations in 2003 to better answer the need of the pharmaceutical and medical industry in terms of multilingual communication. I work full time developing my company's activities as well as a medical translator and editor. I love challenges and I am keen to see all projects I am involved in expand; I am eager to apply my knowledge and experience to contribute to EMWA's present and future development.

Although I am a 'non-traditional' medical writer, I can represent EMWA's members as I have a lot in common with them: I have worked both as a freelancer and in Universities, I deal with all types of medical documentation on a daily basis and moreover, being a French native and having lived in the UK for over 15 years, I understand the issues faced by non-native English speakers.

I am outgoing with excellent communication skills. "Hard working whilst keeping a smile" is what my colleagues and clients say about me. I enjoy integrating people's opinions and requirements and taking them into account in the projects I manage.

On the whole, I feel I have the knowledge, experience, confidence and energy to take on this new challenge and I ask you for your vote of confidence at the upcoming election in Ljubljana.

**For the position of Vice President:****Laurence Auffret**

I am pleased to apply to the position of Vice-President for EMWA. EMWA's impressive history of excellence, along with its commitment to training medical writers and ongoing developments, appeals to my own set of values.

I am an active EMWA member, I am a workshop leader







## 4-letter words and others (5)

by Alistair Reeves

*On* with only 2 letters precedes 4-letter *onto* and *on to* below, and I look at *into* and *in to* for good measure. *In* on its own is worthy of its own column, so I do not delve further into it here. Even though we make widespread use of *quite* when speaking, it is one of those words that are better not used in scientific texts. I also promised you *onset* in the last issue, so here it is—with a sting in the tail for me.

### On

There are some extremely rare uses of *on* as a noun, and less rare uses as an adjective (turn the switch to the *on* position). It is mainly used as an adverb (The patch must be left *on* for at least 8 hours) or as a preposition. Used as the latter, it is sometimes interchangeable with other prepositions and sometimes is reserved for specific meanings.

In a narrative, you might read: *The patient was also on diliazem and an unspecified diuretic when the rash developed.* The implication is clear: the treatment with these substances was ongoing and was probably well established, or intended to be. *On* is not appropriate in this situation for drugs that were given just before the event occurred (for perhaps only one or two days, or even a single dose). Here you have to be more precise: *The patient had received the first 2 doses of cefotaxime just before the rash occurred.*

I have recently seen the following formulation a few times: Patients *on* this study will receive ... This is not a formulation I write spontaneously. I would always go for: Patients *in* this study ...; this is certainly what one might call the 'usual' formulation. In the veterinary field, I often see this or similar: *The new vaccine will first be tested on horses and sheep ...*. This sounds perfectly all right for animals, but I find I could not write: The new agent will first be tested *on* patients aged >65 years. *In* is what sounds right with people—and, in addition to *on*, *in* also sounds right with animals.

*On* also has a specific use in prepositional phrases of time. Everybody knows that in English we say *in the morning*. Construed with the past tense, it means on a particular morning. Construed with the imperative it tells you when to take your medication. Construed with the present or future continuous (*We are going* or *will be going to ... in the morning*), it usually means tomorrow, unless further qualified. Note that I said *on a particular morning* above: as soon as you make the morning you are referring to more specific, the preposition generally switches from *in* to *on*. Don't ask me why—it just does. Hence: *On that morning, the patient developed fever of 40°; The patient died on the*

*morning of 8 February 2006 (but: the patient died in the morning on 8 February 2006!); On the morning the patient was admitted, she complained of ...; On Monday morning.* Look out for this. But **beware**: this applies to *afternoon* (although *in* does creep in here now and again) and *evening*, but not to **night**. With *night*, it depends whether you mean the evening or the whole night: *On Monday night* (evening); *The patient died in the night of 8 February 2006* (night); *On the night we arrived* (evening); *In the night the patient was admitted, she suffered an MI at 03:00* (night).

### Onto

When do you write *onto* as one word and when is it two words?

When you are speaking, the difference is obvious: when you use *on to*, you put a little more stress on the *on* component and draw it out a little more than when you say *onto*. There is no intonation in writing, so you have to be careful when using both. These two examples illustrate the difference:

- 1) To speed up the proceedings, we moved *on to* the second point on the agenda.
- 2) To minimise shudder, we moved the device *onto* a firm bench screwed to the wall.

In the first example, only *on* modifies the verb *moved* to give the phrasal verb *move on* meaning *to progress*, and this is in turn modified by the prepositional phrase (as an adverbial) *to the second point on the agenda*. It would be very difficult to move **onto** the second point in the agenda! In the second example, the preposition *onto* plus its object (*a firm bench*) plus a modifier of this (*screwed to the wall*) form an adverbial phrase, the whole of which modifies the verb *moved*. Phew! Maybe it is just easier to read the sentence out loud if you are not sure!

### Into

The situation with *into* and *in to* is very similar to *onto* and *on to*, with a difference: *in to* is used much more rarely than *on to*, which means that I get fewer questions about *into* and *in to* and very much less frequently have to correct it. Even though *in* is collocated in many phrasal verbs, it is rarely followed by a prepositional phrase as an adverbial that starts with *to*. The grammatical principles are the same as for *onto* and *on to*.

- 1) Divide the aliquot *into* two equal parts (*into* two parts modifies *divide*).
- 2) After completion, please hand the questionnaire *in to* the study nurse (*in* is part of the phrasal verb *to hand in* and *to the study nurse* modifies the verb *to hand in*).

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## &gt;&gt;&gt; 4-letter words and others (5)

Examples 3 and 4 show why mistakes with *in to* and *into* are made much less frequently and need no further comment:

- 3) We turned him *in to* the police.
- 4) We turned him *into* the police.

A different phenomenon is the use of *in* instead of *into* when describing an action. This is impossible in some languages because different cases are used for states and actions, and people from some language groups therefore have a higher sensitivity to this and are careful about the difference. Especially when speaking, but increasingly in written English, I see the following or similar: *Place/put the bead in the crucible* or *The needle is inserted horizontally in a fold of skin drawn up from the abdomen*. Nobody is going to misunderstand these, but I still like to make that extra bit of effort and use *into* because an action is being described.

And, by the way, this also applies to *on* and *onto*: Place the tubes *on* the rack at an angle of 45°. Again, it is quite obvious what you have to do, but using *onto* makes all the difference, and the prescriptivists amongst us would even tell you that *on* is definitely wrong.

### Quite

Not quite a ‘Janus word’<sup>1</sup> [1], the adverb *quite* has contradictory rather than opposite meanings. I used it with its meaning of *entirely* in the previous sentence. The problem is that it is equally frequently used to mean *somewhat* or *to a great extent but not completely*: *The levels remained quite low for the remainder of the observation period* (somewhat). This use is too imprecise for scientific usage, at least when writing, and a better solution should be found. But used in the following way, it means *exactly*: *This was quite the effect we aimed to demonstrate* or *That was quite the wrong thing to do*. It can sound a little formal or even old-fashioned when used this way. This applies to the first example in the previous sentence, but not the second.

When speaking, the word *quite*, when used this way, is also clearly stressed. Both meanings are in widespread use in spoken English, and this is quite (completely) acceptable, because, if there is any uncertainty, listeners can ask for clarification. They cannot do this when reading. *He became quite incoherent after the second dose* or *The answer is quite straightforward*: whilst it is likely that *quite* in both these examples means *somewhat* or *to a large extent*, it might equally well mean *completely*, and is therefore ambiguous. Even though the context will often determine the actual meaning of *quite*, I prefer to avoid it in scientific texts and choose a more precise adverb.

### Onset

Most words we use we have not looked up in dictionaries, even though we are writers. The linguists amongst us may have looked up a few more, but then that really is what would be expected when studying other languages. The

word *onset* was in this category for me until last year, when I discovered, at least according to dictionary definitions, that I had misused it all my life. And not only that: I had unwittingly deceived people about its meaning, sometimes quite emphatically.

For me, it definitely included the idea of a protracted and not abrupt start—hence my refusal to accept it coupled with the word *treatment*, whilst being quite happy to see it used together with the word *effect*. It is often modified by the adjective *sudden*, which also seemed sensible if it generally (as I thought) meant a *gradual beginning*, but then again, it is often modified by *slow* as well, so I thought I would finally look it up, because if it really did include the idea of *protracted*, then there would usually be no need to modify it with *slow*.

The *Oxford English Reference Dictionary* [1] had the following to say: *1 an attack. 2 a beginning, esp. an energetic or determined one*. When we don’t like what we see, we often seek confirmation elsewhere, so I went to *The Oxford Dictionary* [2], which said: *1. ... an attack, assault. 2. The action ... of beginning some operation; commencement, start—slightly nearer to my lifelong assumption, but not near enough for comfort*. So I took recourse to *Websters* [3] (*1 attack; assault 2 beginning; commencement*) and *Chambers* [4] (*violent attack, assault, storming, beginning, outset*), which also brought no solace, because nowhere was there an idea of *slow* or *gradual*. Indeed, quite the opposite, taking into account the first meaning in each case! In our context, only the second meaning of *start* will usually apply<sup>2</sup> (and, please, never use *commencement*, or indeed *commence*, which are just ‘big words’ for *start* as a noun and verb).

So it looks now as though I will have to swallow my aversion to *onset of treatment* and *the onset of the adverse event*. My argument against *onset of treatment* was that you pass in one second from being untreated to being treated as soon as you swallow a tablet or receive an injection, and that this is therefore definitely not gradual. And, in the same vein, *the onset of an adverse event* when talking about a convulsion, for example, is also definitely not gradual. But now I know better.

### Alistair Reeves

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<sup>1</sup> Edith Schwager [1] uses the term ‘Janus word’ to describe ‘double-headed words that have opposite meanings’ (after the two-faced Roman god, Janus, who gave his name to January), e.g. ‘cleave’ which means to cut apart or to cling to.

<sup>2</sup> Although I can imagine that onset with the first meaning may well be used as part of the somewhat ‘military’ language (onslaught, invasion, destruction) used when describing the action of antibodies!



## Ljubljana: The secret revealed

by Ziga Arh

The legend says that God when he was distributing land to all nations forgot about the Slovenians because they were so few in number. He was so embarrassed that he offered them a piece of land he had saved for himself. And that is why Slovenia is so a small but naturally diverse country ([http://www.slovenia.info/?naravne\\_znamenitosti\\_jame=0&lng=2](http://www.slovenia.info/?naravne_znamenitosti_jame=0&lng=2)). Slovenia is also said to be a country of churches on hills. When travelling through the countryside observe the hills passing by and you will soon notice the repeating pattern—a hill with a little (catholic) church on its top.

Slovenia was the most economically developed out of the six republics of the former Yugoslavia. At the first free and democratic elections in 1990 the overwhelming majority of Slovenian citizens voted for independence, which was declared on 25<sup>th</sup> June 1991. In 2004 Slovenia entered the European Union and NATO as well as the Schengen zone and Euro zone a few years later. For more information about Slovenia visit the official Tourist Board website at <http://www.slovenia.info>.

### Accommodation

Everyone will tell you, being a tourist, that Ljubljana is a charming small capital city. And actually it is—but more or less only in the old town centre. That is why to fully enjoy your first short stay in the city it is important to choose a good location to stay.

The EMWA Conference, which is split between the Grand Hotel Union Executive and the Grand Hotel Union Business ([www.gh-union.si](http://www.gh-union.si)), and the Grand Hotel Union Garni where EMWA have secured special rates are ideally located only a 5-minute walk away from the symbolic centre of Ljubljana—the square of the famous Slovenian (romantic) poet, France Preseren (1800-1849). From here you enter the old town by crossing the small Ljubljanica river via one of the three bridges designed by Ljubljana's most famous architect, Jože Plečnik, (1872-1957). Other recommended hotels close to the conference venue are City Hotel and Hotel Slon.

### Special rates for apartments and rooms

What is less commonly known is that you can rent an apartment or room within a 5-minute walking distance from the conference venue and the old town. Such an arrangement not only saves you some Euros but also offers space and flexibility, a better insight into the heartbeat of the locals and an opportunity to become more familiar with the environment. For further information on such alternative accommodation check [www.apartmaji.si](http://www.apartmaji.si). If you find some-

thing interesting ask the agency for an EMWA discount of up to 10%! Even if staying in an apartment or room you can still benefit from breakfast at the nearby hotels or some other facilities and services (parking, cleaning etc.)

### Transport

A few years ago Ljubljana airport was officially renamed Ljubljana Jože Pučnik airport. The closest village to the airport is called Brnik, so locals might call it Brnik airport. Do not become confused by the different airport names—Ljubljana airport, Brnik airport, Jože Pučnik airport—all these are only different names for the only active international airport in Slovenia.

There is no train service between Ljubljana airport and the city. The usual price for a taxi for the 35-minute drive from the airport to the city is around 40 Euro per taxi. Alternatively you can contact Avantour transfer service at [info@avantour.si](mailto:info@avantour.si) in advance and claim a discounted EMWA rate of 30 Euro (payment can be made by credit card). They will also be happy to offer you discounted rates for transport from airports in neighbouring countries: the Italian airports in Trieste, Treviso near Venice and Venice airport, the Austrian airports in Klagenfurt and Graz, or the Croatian airport in Zagreb—all only 1 to 2 ½ hours' drive away.

Two companies run 8-seater minibus airport transfers from Ljubljana Jože Pučnik airport at a cost of 5 Euros to the main bus station, which is only 500 m away from the Conference venue, or you can pay 8-9 Euros (depending on the company) to be delivered directly to your accommodation anywhere in Ljubljana. However, you have to book it in advance and may have to wait up to 30 minutes for the minibus to become at least half full. For bookings see [www.prevozi-markun.com](http://www.prevozi-markun.com) or [www.airport-transfer.si](http://www.airport-transfer.si).

Note that for those coming to Ljubljana by car a motorway tax is payable. The cheapest one is the half-year vignette costing 35 Euro. A digital zoomable map of Slovenia can be found at:

[http://zemljevid.najdi.si/index\\_maps.jsp?&tab=maps](http://zemljevid.najdi.si/index_maps.jsp?&tab=maps)

### Ljubljana

Ljubljana has been named by foreign media as one of the most safe and idyllic places in the world ([http://www.visitljubljana.si/en/journalists\\_and\\_travel\\_professionals/news-resources/news/80046/detail.html](http://www.visitljubljana.si/en/journalists_and_travel_professionals/news-resources/news/80046/detail.html)).

The city is walking friendly due to its compact size and many green spaces. First-time visitors are often stunned because it is such a young and vibrant capital. No wonder,

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## >>> Ljubljana: The secret revealed

as out of a population of less than 300,000 one fifth are university students. One of the best ways to relax and enjoy Ljubljana is to take refreshment at one of the numerous cafes along the riverbanks or in the Old Town. Ljubljana also has close to 10,000 annual cultural events, an opera house and one of the world's oldest philharmonic orchestras.

The official and most comprehensive website on Ljubljana is <http://www.visitljubljana.si/>. Apart from a regular walking and boating tour of Ljubljana, already included in the conference's social programme, you may want to explore the city by bike or to escape the city centre by cycling along the greenery route around the city ([http://en.wikipedia.org/wiki/Path\\_of\\_Remembrance\\_and\\_Comradeship](http://en.wikipedia.org/wiki/Path_of_Remembrance_and_Comradeship)).

For those staying for 3 days or longer a Ljubljana Card ([http://www.visitljubljana.si/en/ljubljana\\_and\\_more/ljubljana\\_card/](http://www.visitljubljana.si/en/ljubljana_and_more/ljubljana_card/)) is available which offers a free city guidebook, free travel on all city buses and free entrance to museums and galleries, not to mention other special offers around the city, including savings on accommodation, taxi, car rentals, restaurants, bars and shops.

### Shopping

Specialty shopping activities in Slovenia should be oriented towards homemade honey and honey products (honey biscuits), Piran salt, Idrija lace, Rogaska glass art, Slovenian designer jewellery and porcelain. All the consumable specialties can be easily reviewed in the shop called Krasevka at Ciril Metodov square 10, just across the street from the cathedral.

What may be of special interest is that in Slovenia it is quite common to bring a present, bought in any shop, to the florists for gift-wrapping and arrangement, with or without flowers.

### Sightseeing

Ljubljana has one of the best-preserved Baroque quarters in Europe that blends harmoniously with the younger Art Nouveau buildings. In the first half of the 20<sup>th</sup> century, the architect Jože Plečnik [not to be confused with Jože Pučnik (1932-2003), a politician who gave the name to the airport] enriched the city with his buildings.

A Ljubljana city centre map is available at <http://www.ljubljana.info/map/>

Leaving aside visiting the castle and The National Gallery, already included in the conference's social programme, some other interesting sights are:

#### *Prešeren Square and the three bridges*

<http://www.slovenia.info/en/arhitekturne-znamenitosti/Ljubljana,-Pre%C5%A1eren-Square.htm?arhitekturne-znamenitosti=834&lng=2>

#### *The Dragon Bridge*

<http://www.slovenia.info/en/arhitekturne-znamenitosti/Ljubljana,-Dragon-Bridge.htm?arhitekturne-znamenitosti=770&lng=2>

#### *The Slovenian Ethnographic Museum*

<http://www.etno-muzej.si/en>

#### *The Tivoli Park and nearby Ljubljana Zoo*

[http://www.slovenia.info/?kul\\_zgod\\_znamenitosti=6296&lng=2](http://www.slovenia.info/?kul_zgod_znamenitosti=6296&lng=2)

#### *Ljubljana Central Market*

<http://www.visitljubljana.si/en/experiences/shopping/75760/detail.html>

### Golovec

For the more energetic Golovec hill is a 20-minute walk from the city centre [http://www.visitljubljana.si/en/tours\\_and\\_excursions/surrounding\\_areas/green\\_outskirts/76463/detail.html](http://www.visitljubljana.si/en/tours_and_excursions/surrounding_areas/green_outskirts/76463/detail.html)

### Day trips

Only a 1-hour drive from the capital you can either climb the Alpine mountains or swim in the Adriatic sea. More than half of the country is covered by forests. You can also admire thousands of underground and above the ground karstic phenomena of limestone (not to mention that the name of karst topography itself originates from the Slovenian region named Kras).

Apart from visiting the Postojna cave (already included in the social programme of the conference) the most typical day trips are either to the lakes Bled and Bohinj or to the coastal city of Piran and other coastal towns, Koper, Portoroz and Secovlje salt pans. The Lipica horses' stud farm is another highlight.

The Skocjan cave is on the Unesco World Heritage List but the largest and most visited cave in Europe is the Postojna cave where one can also see a small amphibian animal called the 'human fish' or olm.

An interesting alternative programme would be to visit the city of Gorica, which was divided between Slovenia and Italy after World War II (like Berlin), with its surroundings the Franciscan monastery at Kostanjevica with the Tombs of Bourbon, experiencing the culinary delights of Zemono mansion and wine tasting in Brda.

### Eating and drinking

Slovenian cuisine is very varied, influenced by its neighbours Austria, Italy, Croatia and Hungary. The typical traditional lunch is a beef soup with noodles followed by beef (taken out from the soup in which it had been boiled) with roast potatoes and green salad, finishing with an apple strudel for dessert. Traditional Slovenians also eat a lot of bread. The most frequently offered specialties are kraski prsut, struklji, potica and Prekmurska gibanica.

For eating out check the Ljubljana Quality Selection list at: [http://www.visitljubljana.si/en/experiences/eating\\_out/ljubljana-quality/](http://www.visitljubljana.si/en/experiences/eating_out/ljubljana-quality/)). Additionally I can offer the following tips:

- take care to book in advance, especially for the Cubo and Smrekarjev hram restaurants
- avoid the Sokol restaurant near the city hall which is mainly focused on tourist groups promising to offer traditional food but of a relatively low value for money

## Ljubljana: The secret revealed

- you may want to try the ‘home-made alike’ cakes at the Zvezda cake shop on Wolfova street for other cuisines
- try the Thai restaurant Da Buda on Subiceva street 1a or Japanese restaurant Sushimama.

## Language

Slovenian is a Slavic language with some Italian and German influences in the colloquial vocabulary. Almost everybody in Ljubljana understands basic English, but if

you would like to know at least some Slovenian words see <http://www.ff.uni-lj.si/publikacije/sft/> or [http://www.bbc.co.uk/languages/european\\_languages/languages/slovene.shtml](http://www.bbc.co.uk/languages/european_languages/languages/slovene.shtml)

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## Wines of Slovenia

Having lived in Slovenia for 9 years, it never ceases to amaze me how such a small country can produce such a large variety of high-quality wines. I am privileged to have tried so many different Slovenian wines in beautiful settings and on numerous unforgettable occasions. Granted, some occasions I may have forgotten, I guess that's just part of wine tasting. But in any case I've become very passionate about Slovenian wines. So when visiting Ljubljana in May, I full-heartedly recommend you venture through at least the main varieties. You may even want to consider extending your stay and taking the opportunity to thoroughly explore Slovenia's wine regions taking advantage of the marked wine routes.

Winemaking and viticulture have been around in Slovenia since before Roman times. Today, more than 40,000 registered wineries, covering 24,600 hectares of vineyards, annually produce approximately 1 million hectoliters of wine. Amazingly, only 50,000 hectoliters a year are exported; mainly to the United States, Italy and Germany. This puts Slovenia on the number 8 spot in the world in terms of per capita consumption; a staggering 43.77 liters/capita/year. Interestingly, the Vatican City is the biggest wine consumer with 62.02 liters/capita/year.

Slovenia mainly produces white wines, some 75% of the annual production. Most of the wines are classified as premium (*vrhunsko*) and less than 30% are basic table wines (*namizno*). There are three main wine regions: Posavje, Podravje and Primorje. The grape varieties and wines from each region have their own unique qualities based on the terrain. Jancis Robinson, the *grande dame* of wines and author of *The Oxford Companion to Wine*, commented that Slovenian wines are special, unique and express individuality. Their individuality comes from the winemakers themselves, who still take a traditional, artisanal approach to winemaking, yet are not afraid of exploring different technologies and techniques. Slovenian winemaking's strong heritage and the sheer variety of grape sorts generate a natural interest from connoisseurs and wine lovers. Slovenian whites are especially delicious, full of distinct flavour and terroir. They are easy-going and suitable for accompanying the modern, lighter culinary style, which gives the wine a chance to make its mark on your dining experience.

The most popularized wine region is the Primorje region, which borders Italy and the Adriatic coast. The soil is mineral rich and summers are usually hot, while late autumn is rainy. Primorje also specialises in reds, setting it apart from the other regions. Winemakers here tend to be the most adventurous with their techniques and marketing, which has provided some very interesting wine brands. A not-to-be-missed wine is Teran, made from Refosk grapes, which are grown in the red, mineral-rich soil of Kras. It has an extremely rich velvety taste, with earthy undertones and a raspberry fragrance; an ideal complement to freshly carved prosciutto.

In the south east of Slovenia lies Posavje which produces some excellent sparkling and blended wines, like Metliska Crnina. The region has many micro-climates and terroirs, which probably contributes to the region's popularity for blends. Cvček is definitely not the best wine from this region, but it's the region's most distinct wine. It's a blend of 14 different wines and is light, fresh and pretty tart, with a low alcohol content. Many Slovenians favour a glass or two of refreshing Cvček to wash down their hot summer barbecues.

Podravje, in the east of Slovenia, is the largest wine region. Its climate and soil make it perfect for white wine cultivation. Many of the most prestigious wine houses originate from here. The Alps shield the region from harsh winters and its rich, aromatic whites are compared to German Mosel and Rhine wines. It is definitely worth trying the region's Sauvignons, Pinots, Laski Rizlings and Rumeni Muskat. I have also enjoyed some incredible desert wines from the Podravje region.

My favourite places to try Slovenian wines are Vinoteka Movia next to the town hall, Dvorni Bar between Ljubljana University's administrative headquarters and the Ljubljana river, or Vinski Klet Slovenija, on the national trade fair grounds. All are just minutes' walk away from the EMWA conference location. And for anyone who might be interested, my favourites are Kristancic, Modri Pinot, 2002 (red) and Valdhuber, Sauvignon, 2006 (white), but I'm not fussy when somebody else is paying the round!

## Stef Harley

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## EQUATOR Network: An umbrella organisation to tackle bias in the scientific literature

by Catherine Mary

**A report on Ian Needleman's opening lecture at the 27<sup>th</sup> EMWA Conference, 20-22 November 2008, London, UK**

When modern physicians read, in the *Treatise of the Scurvy* by James Lind [1], that the effect of '2 oranges and 1 lemon' was compared with that of 'two spoonfuls of vinegar three times a day' in patients at different stages of the disease, they will have little doubt that experimental bias is present.

Albeit less obvious, in the area of evidence-based medicine, methodological bias still threatens the scientific literature. This was demonstrated by Professor Ian Needleman (UCL Eastman Dental Institute, International Centre for Evidence-based Oral Health, Cochrane Oral health Group) in his opening lecture at the 27<sup>th</sup> EMWA conference. His lecture concerned the effective use of research data in healthcare and the threats to achieving this.

An emerging picture suggests that most articles published in medical journals are misleading, and authors of a recent study state that "Simulations show that for most studies and settings, it is more likely for a research claim to be false than true" [2]. Methodological and reporting bias have been identified at various levels of clinical reporting including concealment in clinical trials, the choice of reported outcomes and the choice of published results.

In the mid-1990s, several studies showed that bias protection in data published from meta-analyses can lead to considerable overestimation of the effect of a treatment [3] [4] [5]. Schultz et al. investigated the association between methodological quality and estimated treatment effect in 33 meta-analyses from the Cochrane Pregnancy and Childbirth Database [3]. They showed that the treatment effect was overestimated by 41% in inadequately concealed trials, by 30% for trials where the method of concealment was unclear or not stated, and by 17% in trials that were not double blind [3].

The impact of methodological weakness on bias further varies depending on whether the outcome is objective or subjective, as shown in a recent meta-epidemiological study of 146 meta-analyses embracing 1346 trials in a wide variety of clinical disciplines [6]. The authors quantified the ratio of odds ratios for intervention effects in trials with inadequate or unclear allocation concealment compared with trials with adequate concealment. There was little evidence of bias in trials assessing all-cause mortality or other objectively assessed outcomes such as laboratory measure-

### Major aims of the EQUATOR network:

- to supply resources via the internet-based resource centre
- to develop a training programme (first training workshop delivered in Spring 2008)
- to support the development, dissemination and implementation of reporting guidelines
- to assess annually how journals implement reporting guidelines
- to conduct audit of reporting quality across the health research literature.

ments. In contrast, studies with subjectively assessed outcomes, such as patient-reported outcomes or physician-assessed disease outcomes, were associated with overestimation of intervention effects in studies with inadequate allocation concealment or lack of blinding [6].

Inadequate outcome reporting itself represents a significant source of bias. According to several studies, outcomes are selectively reported within publications and tend to be favoured if they are statistically significant. A cohort study of 102 randomised clinical trials showed that medians of 50% of efficacy outcomes and 65% of harm outcomes per trial were incompletely reported and could not be included in a meta-analysis. When published trials were compared with protocols, 62% of trials had at least 1 primary outcome that was changed, introduced or omitted [7].

Evidence of bias resulting from selective publication of results is also accumulating. A study comparing a review of published clinical trials with a review of trials registered in a cancer trials registry emphasises that positive results are more likely to be published than negative ones [8]. The study examined the survival impact of initial alkylating agent versus combination chemotherapy for the treatment of two cancers: advanced ovarian cancer and multiple myeloma. When only published trials were considered in the pooled analysis, combination chemotherapy showed a statistically significant survival advantage. This benefit was lost or diminished when all of the registered trials were considered [8].

Because healthcare is based on the available research evidence, inefficient use of research data hinders effective healthcare. The impact in public health can be huge, as



## EQUATOR Network: An umbrella organisation ...

exemplified by the implementation of preventive measures against sudden infant death syndrome (SIDS). Although a significant benefit of putting infants to sleep on their backs was reported in 1970, routine advice to put them to sleep in this position was not given until the 1990s [9]. Systematic review of preventable risk factors for SIDS from 1970 would have led to earlier recognition of the risks of putting infants to sleep on their fronts, and might have prevented over 10,000 infant deaths in the UK and at least 50,000 in Europe, the USA, and Australasia.

Coordinated efforts of all stakeholders are needed to promote good reporting and standardisation of clinical trials. With this goal in mind, the CONSORT (Consolidated Standards of Reporting Trials) recommendations were set up in 1996. They include a checklist to guide the reporting of clinical research and a flowchart showing patient flow through the various stages in clinical trials. The checklist includes 21 headings and subheadings, intended to ensure that all the important aspects of trial quality are adequately addressed. These aspects include the description of the hypothesis, randomisation and blinding methods, patient follow-up, and the effect of trial quality on the interpretation of the results.

The CONSORT recommendations have so far been adopted by most general medicine and more than 100 specialist biomedical journals [10]. A recent meta-analysis that compared reporting in journals that have adopted the CONSORT recommendations with that in those that have not and within journals before and after adoption showed that adopting CONSORT had helped to improve the quality of reporting, but that journals do not enforce it enough [11].

Implementation of the CONSORT guidelines needs therefore to be strengthened through stronger editorial commitment and the development of training and resources. These developments are among the goals of the EQUATOR (Enhancing the Quality and Transparency of Health Research) network (See box)[12]. Arising from the work of CONSORT and other groups, the EQUATOR network seeks to improve the quality of health research literature by promoting the transparent and accurate reporting in scientific journals. Its inauguration in 2006 took the promotion of good reporting a stage further. It aims to act as an inter-

national 'umbrella' organisation covering all areas of health research and bringing together all stakeholders including developers of reporting guidelines, editors and peer reviewers, researchers, medical writers and publications professionals. EQUATOR, which is funded by public and private partners, held its official launch meeting in London in June 2008.

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## Speaking of 'respectively'...

If you connect both speaker sets to terminals A and B respectively to deliver sound at the same time don't connect a speaker to more than one pair of speaker terminals.

Even if you leave *respectively* out here, you are still at a loss as what to do. At least we were!

Alistair Reeves  
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## Vital signs

### Dear TWS

Along with, I guess, every other member of EMWA I recently received a Data Check of membership information. As a Nick Thompson Fellow, I am on the database as a life member. Those who know that I've not been too well of late will, I hope, be pleased to hear that my life membership expires on December 31, 2050. I'll be 104.

I'll do my best to comply with the prediction of the EMWA computer.

Geoff Hall  
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# EMWA Member Satisfaction Survey: The details

Helen Baldwin gave a summary of the answers to the general questions in the EMWA Member Satisfaction Survey in her article published in the last issue of *The Write Stuff* [17(4):190-3]. Here the Education Officer, Website Manager and Journal Editor report and comment on the details of your answers relating to their areas of responsibility.

## The EMWA Professional Development Programme

The EMWA Professional Development Programme, or EPDP, forms the core of every EMWA conference. Since its inception in the year 2000, the EPDP has grown meteorically, and diversified and broadened into the foundation and advanced levels [1]. The results of the Member Satisfaction Survey thus come very timely at this stage in the development of the EPDP, when EMWA's membership is itself rapidly growing and diversifying.

The scores and comments from the survey on the EPDP-related questions (questions 22 to 28) give pointers to the direction that the EPDP should move. Several steps have already been taken as a result of the survey, as I shall describe below. The message from many comments is that a better explanation is needed concerning the way the EPDP works, which I shall also address in this article.

### Enrolment in the EPDP

Questions 22 and 23 of the survey asked whether respondents were enrolled in the EPDP, and if not, why not.

About 50% of respondents were EPDP enrolled, in either the foundation or the advanced programme, or both. Half of the respondents who were not enrolled did not require EPDP certification, or had already obtained the certificates they needed. Of the rest, the biggest reason for non-enrolment was uncertainty of the benefits of enrolment, or that new members had simply not yet had the opportunity to join the programme.

Whether obtaining an EPDP certificate would be of benefit will be a matter of one's personal goals, ambitions and career path. From my own experience as an employer of medical writers for over twenty years, I believe that EPDP certification brings considerable benefits, and I have heard from many others that this is so. However, EMWA members may attend EPDP workshops without being enrolled in the EPDP. No certification is then awarded (also not re-

spectively if the member subsequently enrolls) but of course the participants still have the full educational benefit of the workshops.

The cost of EPDP enrolment covers administrative expenses associated with tracking EPDP credits and issuing certificates. A few responses suggested that cost was prohibitive. Since the cost of EPDP enrolment is €100 per level, good for five years, or only €20 per level per year, there may be confusion between the cost of EPDP enrolment and the cost attending workshops themselves: the overall value for money of the EPDP is discussed below in connection with question 27.

### Administration of the EPDP

The majority of respondents (85%) felt that administration of the EPDP (question 24) was good or excellent, but an alarming 15% of respondents were dissatisfied. As Helen Baldwin mentioned in her article on the survey, EMWA has been taking measures to remedy this.

The reasons most commonly given for dissatisfaction related to delays or errors in credit statements. The new EMWA website now enables members to check their credit records online, and Head Office have initiated a 'data cleanse' to reveal any discrepancies between the credit database and members' personal records. Since the start of the data cleanse, we have been able to resolve errors in the database, or clarify that in some cases, no credit could be awarded (e.g. due to non-enrolment in the EPDP at the time of the workshop). I am confident that direct access by members to their credit records via the website will now resolve these sources of dissatisfaction, now and in the future.

Some of the responses revealed a misunderstanding of how the accreditation system works. For example, some members were under the impression that they must acquire sufficient credits within a specific timeframe to obtain accreditation. There is in fact no time limit to obtain accreditation, only a re-enrolment in the EPDP after five years. To address these and other questions, I have thoroughly revised and updated the EPDP Brochure which was re-issued in October 2008 and is available on the EMWA website.

### Choice of workshops in the EPDP

Overall, 92% of respondents were satisfied with the choice of workshops in the EPDP (question 25) and there were many positive comments. There was evidently a need for

## EMWA Member Satisfaction Survey: The details

an updated list of all workshops in the programme since many comments contained suggestions for topics that are already included. I have now provided this list in the new EPDP Brochure.

Some respondents commented on the limited choice of advanced workshops in the programme as compared to foundation workshops, others on the balance of the programme at each conference. Some respondents asked why the most popular workshops were not run twice per conference. In order to address these issues, I would like to explain how the EPDP works.

Many new members may not realize that EPDP workshop leaders provide their services for free. This applies not only to running the workshop itself but for the time spent before and after the workshop in preparing materials and marking up to 32 assignments per workshop. Some workshop leaders provide two or even three workshops at each conference, which represents a very hefty workload. These voluntary contributions enable workshop fees to be kept very much lower than those charged by commercial training organisations. The arrangement also strengthens the spirit of EMWA, which serves to bring experienced and less experienced medical writers together for networking, training and professional development. However the voluntary nature of the workshop leader contributions does place constraints on the availability of workshop leaders and topics at any given conference.

The advanced programme was separated out of the EPDP for its own certification in 2005 (before then, the EPDP certificate consisted of a mixture of advanced and foundation topics) and is still growing [1]. As with the EPDP in general, the availability of advanced topics depends on members coming forward with proposals to run advanced workshops. For those interested, the process of development of a workshop is described in the Workshop Leaders Handbook, which I have also now revised extensively (December 2008) and is available on the website. Prospective workshop leaders will find everything they need to know in the Handbook. A crucial feature of the EPDP is that workshop leaders are supported by the EMWA Professional Development Committee (EPDC) throughout the development of their workshop, and new workshop leaders are assigned an EPDC mentor.

As Education Officer, I assemble the EPDP schedule at each conference. A few respondents to question 25 noted that there was an overlap of interesting topics. Naturally, I am delighted that there are so many interesting topics in the EPDP that overlap is unavoidable! The starting point in assembling the workshop programme is however the availability of workshop leaders, who must let me know up to a year in advance if they can attend a conference and present one or more workshops. I then aim to provide, at each session, a maximum choice of EPDP options and levels. In doing so, I have to consider that workshop leaders may have other commitments during the conference (such as running a discussion forum, observing a new workshop, attending training, participating on another committee or

running other workshops), or may not be present for the whole conference. Occasionally, a workshop leader may have to withdraw from the conference at short notice. These factors can distort the 'ideal' timetable.

However, compared to just a few years ago, there is now a very wide workshop choice at each conference, and there will always be another conference where you can take the workshops unavailable this time round. The registration form now allows participants to provide first and second choices per session, which will further optimize everyone's personal conference planning.

### Quality of workshops in the EPDP

Perhaps the most pleasing result of the survey on the EPDP is that 98% of respondents (question 26) found the quality of the EPDP workshops good or excellent. Many comments reflected this, though there were some more critical remarks.

The Workshop Leaders Handbook describes the EPDP quality control procedures, which include mentoring and observing new workshops, running them under assessment, providing free training for workshop leaders, and assessing participant evaluations for every workshop. The Handbook, which I hope will be read by all EMWA members and not just prospective workshop leaders, should answer most of the comments and questions on workshop quality control. It also addresses the issue raised by some respondents as to why a 'one-size-fits-all' approach cannot be applied to all workshops and workshop leaders.

The input of workshop participants on evaluation forms is crucial to the ongoing quality assessment of workshops. The following calculation reveals the scale of data management now required. A conference that includes 50 EPDP workshops (as the forthcoming conference in Ljubljana) with an average of 20 participants per workshop means 1000 evaluation forms, each of which contains 8 scored items plus comments. Entering eight thousand items of data and hundreds of comments into a database is not a trivial task! Head Office fortunately is now able to dedicate the resources to manage this. The evaluation forms from all 'under assessment' workshops will be transferred to a database during the conference for immediate review by the EPDC, which meets on the last conference day. All other evaluation forms will now be processed at Head Office within a couple of weeks of the conference and made available electronically to workshop leaders and the EPDC. The evaluation scores and comments will be tracked on a spreadsheet per workshop, so that any quality-related issues over time can be identified, addressed by the workshop leader, and followed up by the EPDC.

### Value for money of the EPDP

Question 27 showed that 89% of members thought the EPDP was good value, though 11% disagreed. The latter result is surprising given the positive assessment of quality and choice provided by the EPDP, and I would like to offer the following thoughts on EMWA's pricing policy.

EMWA is a non-profit organisation and all of its income is

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>>> **EMWA Member Satisfaction Survey: The details**

absorbed into the running and management of EMWA activities. As mentioned above, the voluntary nature of the workshop leaders contributions (and of course the contributions of the EPDC, workshop leader trainers and observers) significantly reduce EMWA's costs.

Workshop fees (€135 per foundation workshop and €210 per advanced workshop), which make up a large proportion of EMWA's income, have not increased for several years. About the only way that they could be made substantially lower would be to run only the most popular workshops which fill to (near) capacity, though whether we would have sufficient workshop leaders interested in running these workshops at every conference is another matter. However, EMWA believes that the conferences should also offer specialist topics even if they attract fewer participants. This also extends to exploring new topics that may not be immediate block-busters when run under assessment, and new formats with restricted participant numbers, such as the recently introduced 'master class', that provide more intense training. The cross-subsidy of such workshops by the most popular ones enables the ongoing growth and diversification of the EPDP. Given the strong interest shown by respondents in broadening the choice of available workshops, this is clearly the correct approach.

By having the flexibility to branch out into new areas, EMWA will also increase its appeal to new segments of potential membership, further catalysing the growth and strength of the association. The ever more rapidly increasing membership numbers show that EMWA is on the right track in this respect.

Last but not least, the EPDP is one of the few opportunities to obtain certification in medical writing. The approval and ongoing quality control of the workshops by leading medical writing professionals is unmatched by any commercial training organisation, and the workshop leaders themselves are amongst the most accomplished professionals in the field. These aspects, together with the low workshop fees, add up to very good value for money compared to other training opportunities available.

**New areas for the EPDP**

The responses to question 28, expansion of the EPDC into new areas, provided many interesting suggestions for new EPDP workshop topics. Some are in fact already in the programme, and as I mentioned earlier, the new EPDP Brochure gives up-to-date information. Some responses to question 35 (areas that EMWA should be targeting as an association) overlapped with this question.

Specific topics that were suggested and are not yet in the EPDP (or only partially covered) include:

- The EU clinical trials directive\*
- The risk management plan
- Clinical trial registries
- Appendices to clinical study reports
- Investigational medicinal product dossiers
- Understanding laboratory data
- Health economics
- Non-clinical writing
- Medical devices
- Management and training of medical writers
- Advanced pharmacology\*
- Impact of different linguistic backgrounds of medical writers\*
- Medical marketing
- Business skills\*

Some of these topics (e.g. advanced pharmacology or business skills) could in fact be several workshops; those marked with an asterisk have, since the survey was conducted, been included in the EPDP in some form and will run under assessment in Ljubljana in May 2009. Some suggestions (e.g. patents, career development, freelancer needs, and computer skills) would probably be more suited to non-EPDP parts of the EMWA conference or are already provided outside the EPDP and could be further developed.

Aside from the specific topics listed above, there are whole EPDP options that would benefit from addition of new workshops, most notably Medical Communications and Medical Science at both foundation and advanced levels—gaps that were also noted in some of the more general responses to question 28. Moreover, as EMWA's membership grows, entirely new options may emerge, such as medical writing in television, radio and films.

So this is my cue for a call for new workshop leaders! The EPDP (and EMWA generally) depends on the skills and expertise of members willing to support the association as workshop leaders. Even though these contributions are voluntary, supporting the association brings its own reward for many workshop leaders. In addition, workshop leaders sharpen their training skills and, by reaching a wide audience, may establish contacts which are fruitful in their professional activities outside EMWA. Being an EMWA workshop leader can also look great on a CV.

All proposals for new workshops can be sent to me, whether on any of the above topics or any other topic you may wish to present. I will pass on to the EC all suggestions that may be more suited to run as seminars, forums or other events outside the EPDP.

Finally, I would like to add my thanks to those of my fellow EC members to everyone who took the time and trouble to complete the EMWA satisfaction survey and contribute to shaping EMWA's future.

**Stephen de Looze**

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**Reference:**

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## EMWA Member Satisfaction Survey: The details

## Summary of the EMWA Volunteer Reimbursement Policy

EMWA is a not-for-profit organisation that relies on volunteers. Executive Committee (EC) members, EMWA Professional Development Committee (EPDC) members, workshop leaders, seminar leaders etc. give their time and expertise voluntarily. Volunteers, with prior approval from the Treasurer, are offered reimbursement of expenses from the association. The precise extent of the reimbursement varies according to the contribution and its value to the association. However, all volunteers who qualify for reimbursement are fully informed of their entitlement before they incur any expenses.

In brief, volunteers are entitled to the following:

- Waiver of conference registration fee\*
- Accommodation in the conference hotel (maximum 4 nights)
- Travel expenses\*\* (economy class)

\* One day only for invited speakers or leaders of short workshops

\*\* Panel members may be reimbursed for travel expenses OR registration but not both.

A complete copy of the reimbursement policy is available in the members only section of the website (<http://www.emwa.org/InDevelopment/Policies-VolunteerReimbursement.html>), or from Head Office.

**Wendy Kingdom**

EMWA Treasurer

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## The EMWA Website: An online community for our organisation

Over the last couple of years, EMWA has made a considerable investment into the EMWA website and the online features it offers to EMWA members. In May of last year, we saw the launch of a new website, built using cutting-edge web technology designed to provide a much more interactive web experience. Whilst retaining old favourites, such as the job adverts and conference pages, the new website also offers numerous opportunities for the EMWA membership to network, share opinions and promote our profession as whole.

The work did not stop with the launch. Since then we have been collating feedback from the EMWA membership, with the aim of refining the website so that it meets all the need of EMWA members. EMWA's website is an ever-evolving entity; this evolution is largely dependent on feedback and contributions from the EMWA membership. In the recent EMWA Member Satisfaction Survey, we were

pleased to see that 92% of survey respondents rated the new website as 'excellent' or 'good'. However, we were also pleased to see that so many respondents had taken the time to provide invaluable feedback on the new website and its features to the web team.

The conference pages continued to be a favourite with EMWA members, with 76% of survey respondents stating that these pages were of particular interest to them. Last year saw the unveiling of the new online conference booking system, which has had a huge impact on the efficiency of the conference registration process, and an updated conference listing, which allows for easy scheduling of conference activities. About a third of survey respondents thought the freelancer and company listing were another interesting feature. However, a number of people felt that the format and content of the listing was not quite right. In the months following the Spring conference, the web team worked closely with Alistair Reeves, Sam Hamilton and Jo Whelan to obtain more detailed feedback on the listing from freelance EMWA members. This feedback was collated and is informing the future development of a new and improved listing.

It was also clear from the survey that some of EMWA members were not yet aware that new features were being offered on the website. By now you should have received our 'Top 10 reasons for members to use EMWA's website', which provided information about the new Discussion Forum, *Wiki-encyclopaedia*, Member Blogs, Events Calendar, Useful Links database, and Photo Gallery, and I am thrilled to see these features are now being viewed and used. Alistair Reeves has created a Freelancer Discussion Forum, which is a separate forum dedicated to issues relevant to freelance EMWA members. An e-mail notification system means that users of the forum can get an immediate notification anytime someone posts something new, making sure no-one has to miss out on the debate. Requests for other specialised forums are welcome.

In the upcoming year, you can expect to see further changes to the design, content and features of the website. Most importantly perhaps, feedback on the new navigation system suggested that it needed to be simplified. The web team are currently working to refine the navigation system, so it is easier to find specific information and features. In response to the request for more information about workshops, we are creating a searchable online database of all of the EMWA workshops and workshop leaders. We are also developing a new file management feature on the website that will allow workshop participants to download pre- and post-workshop assignments, workshop handouts and other resources provided by the workshop leaders. Recently, we unveiled the new look Journal pages, which offer access to the current and all past issues of *The Write Stuff*, as individual downloadable pdfs, as far back as 2002. In an exciting development, we have also managed to track down even earlier issues of *The Write Stuff*, and will be soon offering access to these articles via the website.

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>>> **EMWA Member Satisfaction Survey: The details**

One survey respondent spoke of the new website stating, “Now it (the website) is appealing (to) a wider range of people ... I believe EMWA will receive more contributions from its members and be a much more active organisation”. This perfectly captures my vision for the website. I hope that as EMWA continues to grow and become more vibrant, the website too will become a more vibrant face for our organisation. The website is already a valuable resource, but, with your help, it can grow into an invaluable one. Through *Wiki-encyclopaedia* articles, blogs, active discussion forums, an online journal article archive and useful website links, the EMWA website will hopefully become a one-stop shop for information about EMWA, its members and our profession. The website also now offers a number of ways in which to network with other EMWA members outside of the twice-yearly conferences. Whether it be by posting a blog or by joining or starting a discussion forum, the website offers a way to connect with other members, discuss important issues or gain useful advice. Your involvement in our thriving online community will drive the future development of EMWA’s face to the world.

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## **The Write Stuff (TWS): The journal for European medical writers**

*“You can please all the people some of the time, and some of the people all the time, but you cannot please all the people all the time.”* This quote is a variation on one of Abraham Lincoln’s pearls of wisdom, in which he spoke about fooling rather than pleasing. I am not fooled into thinking that you can’t at least try to please most of the people most of the time. But there is little you can do without knowing what they want. This is why I would like to thank all the EMWA members who took the time to complete the section of the EMWA Member Satisfaction Survey relating to *TWS*.

In this short report I want to concentrate on the answers to the free-text question “Is there anything that you would like to see included in future editions?” Some of the suggestions made in this section of the survey have already been implemented. The regulatory theme of this issue and the statistics theme for the September 2009 issue, to be guest-edited by Adam Jacobs, are responses to requests for more articles on regulatory and statistics topics. Other examples of suggestions that have been implemented are the translation section introduced in the last issue, definitions boxes on page 197 of the last issue [17(4)] and page 10 in this issue, and some practical advice about billing on page 211 of the last issue.

Another request made in the survey was for more sources for, or links to, tips on better writing. To meet this request readers are invited to submit their personal favourites for inclusion in a box like the one on page 5 in this issue of *TWS*. Calls were also made for information on guidelines and for updates on changes in legislation relating to clinical trials and medical writing. Kathy Thomas and Claudia Tesch as well as Deborah Zarin have kept us abreast of the FDA Amendments Act, 2007 [16(2)67-72, 17(2)70-73, 17(4):198]. Is there anybody out there who would be prepared to write an article or box on any guidelines or other legislation relevant to medical writers?

The following is a selection of article topics suggested by respondents to the survey. I would be delighted to receive articles on any these topics—you can be sure that at least one person will read the article!

- ‘Lessons learned’ kind of topics related to regulatory submissions (short boxes on isolated experiences would also be most welcome)
- Quality control
- Typical medical writer tasks but other than regulatory writing
- Non-clinical study regulation
- Medical communications
- Career development
- Literature databases
- Listing of different types of deliverables with the items that need to be incorporated
- Marketing of medical writing services

A request was also made for a listing of articles published by EMWA members in main journals. This would certainly be interesting and useful. A list is being compiled which will appear in the next issue of *TWS*. The list will then be retained on the website and new additions will be published in future issues of *TWS* and added to the list on the website. All EMWA members who have not already done so are invited to send me references to articles relevant to medical writing/biomedical publication or topics of general interest to medical writers that they have published during 2008 and 2009. The list will not include research or review papers on topics that are not specifically relevant to medical writing as such.

Three survey respondents asked for a wider diversity of authors. I admit that when I open the journal I also get the impression that I see the same faces. Maybe a solution would be to stop publishing author photos, because in fact the impression is false. Apart from the regular columns (*From the Editor’s desk*, *Message from the President*, *In the bookstores*, *Webscout* and *Journal watch*) *TWS* published 52 articles in 2008. These articles were written by 45 different authors (4 articles had 2 authors each). Furthermore over a third of the articles in the December issue were written by authors who are not members of EMWA. What about the regular columns? Two of *TWS*’s four issues this year will be guest-edited. This means a dif-



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ferent perspective and different authors for *From the Editor's desk*. The *Message from the President* has to be written by the President—no way around that. In the bookshelves reviewed 6 books last year—by 6 different authors. We hope that this year we will be able to make the person who asked for 'More book reviews' happy. Writing a book review is a very good training for article-writing. You also get to keep the book. So if anyone has a book in mind and would like to review it, please contact me. I doubt that any of the three comments were made with Joelyn's short *Webscout* articles in mind, because she has a remarkable knack of finding interesting and different topics. *Journal watch* is produced by the Dianthus team (three different authors last year), who do a valiant job. Anybody else who sees an article of interest to medical writers is welcome to write a box about it (for an example see the boxes on pages 10, column 1, 12 at the bottom of column 2 and 20, column 1).

Finally the message is clear. We will strive for more articles on grammar and style, more articles on regulatory

matters, and a greater number of entertaining articles about medical writing. But *TWS* needs members who will write these. And there are good reasons for writing an article. Authors retain the copyright, so they are free to put the pdf of their article on their website. For those who do not have websites or are not freelancers an article is an impressive addition to a CV. Yesterday an author who works in a pharmaceutical company asked for copies of an article he had written a few years ago. He wrote that he needed "some written material that demonstrates my breadth of writing. While I have many scientific examples, I'm lacking some of the easier reading samples". Not long ago, another author wrote to me excitedly to say that as a result of prospective employers reading her article written in *TWS* she had received two job offers!

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## Correct tense vs practicalities (or, what is copyediting coming to?)

A referee's change to an abstract of an applied linguistics paper caused the author some consternation. The referee had changed "we have previously demonstrated that..." to "we previously demonstrated...". The conscientious author was keen to establish authority for the version as originally written by her and—knowing that verb tenses have their very special usage in scientific writing, especially the past and the present perfect—she sought the opinions of an array of expert linguists to find out why the simple past should replace her original present perfect. Finally, the case for the defence was ready for submission to the referee. But the wind was blown out of its sails when the referee replied that the reason for the change from the present perfect to the simple past had been that the abstract was already too long and that all unnecessary words had to be deleted!

With thanks to **Françoise Salager-Meyer** (francoise.sm@gmail.com) for this amusing, strange but true story.

NB: Readers of *TWS* can look forward to an article by Alistair Reeves in the June issue which will explore the complex area of the 'appropriate' use of the present perfect and simple past in biomedical manuscripts.

## Do the words majority and minority take a singular or a plural noun?

I have found various and complicated answers to this question but the one I was most comfortable with was that given by the *Hutchinson Encyclopaedia*. It states that *majority* and *minority* are singular words that can be used alone but if they are used with another entity it should not be singular (an exception is cases like *minority of the committee*, which means a minority of the members of the committee). This means that usually *majority* and *minority* will take a plural verb. For example, *The majority of people thinks English is easy* just doesn't sound right. Does it? *Hutchinson* suggests a simple trick to find out the true subject of the sentence: if *many* or *most* can be substituted for *majority* and *fewer* for *minority* a plural verb is called for, e.g. *Most people think English is easy*. This works even if the subject of the sentence is not actually stated, e.g.

*The majority of/most scientific papers are written in English*

*A minority/few are written in French*

An example of where *majority* itself is the subject of the sentence is *the government's majority has grown*. And if the amount is specified either a singular or plural verb can be used, e.g. *A 60% majority have/has voted for the government*.

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## In the Bookstores...

## Friedbichler: A superlative and unusual German medical dictionary



*Friedbichler and Friedbichler. KWiC Web Guide to Medical English for German-Speaking Health Professionals / Fachwortschatz Medizin Englisch. Sprachtrainer und Fachwörterbuch in einem. Thieme-Verlag, 2007. ISBN 978-3-13-117462. Print version and CD-ROM each €59.95.*

Ingrid and Michael Friedbichler's English-German dictionary *Fachwortschatz Medizin Englisch. Sprachtrainer und Fachwörterbuch in einem* is an exceptional work in many ways. Now in its second edition, it has over 100,000 entries and features nearly 70 graphics, a selection of clinical and idiomatic phrases and a general guide to pronouncing English medical terms. There is also a list of over 400 English medical abbreviations not covered elsewhere in the dictionary. It includes standard auxiliary information such as the phonetic alphabet and a list of key differences between British and American spellings.

The dictionary was designed as part of a new approach entitled *Key Words in Context* (KWiC); the entries are grouped into 142 units of subcategories such as indications, anatomical systems, clinical procedures and so on. Unlike the standard alphabetical format of most dictionaries, the print edition has German and English indices in the back. Once you have found your term in the index, you have to flip forward to an entry in the main part of the text, where you will find not only the word you wanted but semantic and usage-related information on the English as well. The *Key Words in Context* system was created with an international audience of non-native speakers in mind, which means that the focus is squarely on English; the German translations are listed as key words to the right of the more detailed English entries.

To provide an example, if you look up 'affective disorder' in the print edition, the index will send you to unit 4, entry 4 (as shown on the blue tab in the right margin and the number in the lower right corner of the grey box, respectively), where the term is number 13:

## Illness &amp; Recovery

## BASIC MEDICAL TERMS 15

**disease** [diz:z] *n* **syn** **disorder** *n*, **sim** **condition**<sup>1</sup> *n*, **dysfunction**<sup>2</sup> [1] *n* **term**  
specific impairment [ε] of health or disturbance [ε] of normal function [Δ]  
**diseased**<sup>3</sup> *adj* **term** • **disordered**<sup>4</sup> *adj* • **disease-free**<sup>5</sup> *adj* • **dysfunctional** *adj*  
He suffers from a rare heart condition. Does he have a medical condition that could account [au] for the fatigue<sup>6</sup> [fəti:g]? Patients with associated conditions<sup>7</sup> may benefit from<sup>8</sup> this mode of therapy.  
Use to eradicate<sup>9</sup> a disease • heart / lung / viral [au] **disease** • crippling<sup>10</sup> / advanced / rare disease • progressive / no evidence of (abbr NED) **disease** • systemic / underlying<sup>11</sup> / predisposing **condition** • in a critical **condition** • **diseased** organ / area • mental / behavior<sup>12</sup> [εi] / affective<sup>13</sup> / attention deficit **disorder** • autonomic / (borderline/ antisocial) personality<sup>14</sup> / emotional **disorder** • organic / functional / psychosomatic [sajkə-] **disorder** • congenital [dʒe] / anxiety<sup>15</sup> [au] **disorder** • panic / posttraumatic stress **disorder** • eating<sup>16</sup> / substance abuse **disorder** • multiorgan / motor / endocrine / erectile<sup>17</sup> **dysfunction** • **dysfunctional** uterine bleeding (abbr DUB) / labor<sup>18</sup> [εi] • **dysfunctional** state / sphincter / voiding<sup>19</sup>

**Note:** While *illness* is a broad term for any health problem, *disease* is used with distinct pathologic entities and *condition* preferably with chronic or multiple disorders.

### Krankheit, Erkrankung, Störung

Krankheit, Leiden; Zustand, Befinden<sup>1</sup> Funktionsstörung, Dysfunktion<sup>2</sup> krank, erkrankt, befallen<sup>3</sup> krank, gestört<sup>4</sup> rezidivfrei<sup>5</sup> Müdigkeit<sup>6</sup> Begleiterkrankungen, Komorbidität<sup>7</sup> profitieren von<sup>8</sup> eine Krankheit ausrotten<sup>9</sup> zur Invalidität führende K.<sup>10</sup> Grunderkrankung, -leiden<sup>11</sup> Verhaltensstörung<sup>12</sup> Affektstörung<sup>13</sup> dissoziale Persönlichkeitsstörung<sup>14</sup> Angstneurose<sup>15</sup> Essstörung<sup>16</sup> Erektionsstörung, erektile Impotenz<sup>17</sup> Dystokie<sup>18</sup> Miktionsstörung<sup>19</sup>

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## Help through the research regulation jungle

Hugh Davies from the UK's National Research Ethics Service answers (*BMJ* 2008;337:a2920) some of the problems raised in Stewart et al's article 'Regulation—the real threat to clinical research' (*BMJ*;337:a1732). He points out for instance that the Ethics Service runs an email queries line to help researches through the intricacies of regulation (queries@inres.npsa.uk).

The obvious and unique advantage of this approach is that when you look up a word, you are shown a wide range of synonyms, antonyms, abbreviations, collocations, related parts of speech, pronunciation of challenging words, technical and lay terms and other information on usage. This is extraordinarily helpful, especially when you are dealing with a subject area which is not familiar to you. The drawback to working with the print version is that having to flip back and forth and search more than usual takes some time, which is not expedient for rush jobs or when dealing with

## In the Bookstores...

other time constraints. Correspondingly, my university students of translation appreciated the Friedbichler dictionary immensely but often relied on other reference works at test time because they were only allowed to use print media during their exams and wanted to move quickly in an exam setting. Under regular working conditions, however, the benefits of using the print version of this dictionary greatly outweigh the inconvenience of having to spend more time looking for a word. The second edition is also available as a CD-ROM, which eliminates the problem altogether.

An example of an entry in the CD-ROM version:

The screenshot shows the KWIC Fachwortschatz Medizin Englisch online dictionary. The search term 'hospital' is entered in the search bar. The interface displays a left sidebar with a tree view of medical terms, a central pane with the entry for 'hospital' including its German translation 'Krankenhaus, Klinik, Hospital, Spital' and a list of related terms, and a right pane with a detailed German definition. The entry for 'hospital' includes: 'health facility [a] or medical institution where the sick or injured receive medical or surgical treatment', 'hospitalize; v', 'hospitalization; n', 'hospitalism; n term', 'prehospital; adj', and a list of related terms like 'general hospital', 'university hospital', 'army hospital', etc.

Mousing over a term in blue font highlights both the word itself and its translation. The interface works with an Internet browser, and the interface language is German. One of the dropdown menus for the search function has a noteworthy option. In online dictionaries, it is quite common to be able to choose whether the word you're looking for should appear at the beginning, middle or end of a phrase or precisely as entered (although as is often the case, this function only really works when quotation marks are used); however, the search criteria here also let you do a fuzzy search for up to two errors or deviations from the word in question. To take 'heart' as an example, a zero-error search yields 134 relevant hits, whereas allowing for one error leads to 218 hits which include 'heat stroke' and 'heating blanket', and searching with two errors yields 1039 hits, among them 'beard', 'heal', 'heavy goods', 'health spa' and so on. This unusual function can be especially advantageous for non-native speakers and the spelling-impaired.

The Friedbichler dictionary has become a trusted part of my library of medical references, and in the four years I

have been using it for translations from German into English, there have been only very few occasions where I have disagreed with the terms it suggests or questioned the relative merits of an entry. The wide range of topics it covers is nearly unparalleled among German-English medical dictionaries; its 142 units feature subcategories such as histology, physical therapy and rehabilitation (even including the names of standard therapeutic devices), surgical equipment, first aid, walking and locomotion, biochemical elements and compounds, genetics, common signs and symptoms for several indications, and much more. If in doubt,

the authors clearly chose to err on the side of excess; for example, the section on food and drink is detailed to an extent which may not be entirely relevant in a medical dictionary. However, this is not to be regarded as a failing, especially since their thoroughly researched work does not sacrifice quality for quantity.

The dictionary is very good about pointing out distinctions between British and American usage, reflecting the needs of its target audience of non-native speakers, and it is also generally good at citing alternative pronunciations. Like every dictionary, it has a few shortcomings here and there: for example, it correctly states that the word migraine is pronounced [maɪˈɡreɪn] or [miːˈɡreɪn] but does not inform readers that the former is American and the latter is British. Some local flavor is evident in a few words which are not widespread outside the authors' home country of Austria. Most of them are listed as being regional variants, but in cases such as *Ordinationszeiten* for 'office hours' versus the high-German term *Sprechstunden* for 'consulting hours', the distinction seems arbitrary, and I see no reason

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why the terms should not be listed as synonyms. Occasionally some imprecision arises, such as ‘assaultive behavior’, which does not belong under the entry on ‘rape’ unless it is intended as a euphemism; *pasta asciuta* for ‘spaghetti in tomato sauce’; or *Dauermedikation*, which is listed as ‘life-long medication’ although it could also mean ‘long-term medication’. In light of the dictionary’s overall reliability and scope, however, these oversights are minor.

Ingrid and Michael Friedbichler have released a similar, albeit much smaller, dictionary on the topic of dentistry, and currently they are making arrangements for their *Key Words in Context* concept to be applied to other language pairs. All in all, their German-English dictionary has created a superlative resource which is without peer on the market of bilingual medical works. It is affordable, consistent, trustworthy and incomparably useful for both native speakers and non-native speakers. If you want to start building a library of bilingual medical dictionaries, start with this one.

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## English as Tyrannosaurus rex or linguistic diversity?



Augusto Carli and Ulrich Ammon editors: *Linguistic inequalities in scientific communication today*. AILA Review Volume 20. John Benjamins Publishing Company, 2007. ISBN 1461-0213. 133 pages. Euro 87, USD 131.

For those who are not familiar with the *Association Internationale de Linguistique Appliquée* (AILA)<sup>1</sup>, a few introductory words are in order. AILA is an international federation of associations for applied linguistics that was created in 1964 and has affiliated associations and organizations in 35 countries. In broad terms, the aim of AILA is to promote, coordinate and disseminate research in applied linguistics and to collaborate with international, non-governmental organisations in key areas of the discipline.

The book under review represents its 20<sup>th</sup> Volume, edited by two renown applied linguists: Augusto Carli from the Università degli Studi di Modena-Reggio Emilia (Italy) and Ulrich Ammon from the Universität Duisburg-Essen (Germany) who have both extensively published on the various issues at stake in this Volume (e.g. [1, 2, 3]). More specifically, the book deals with the actual and potential problems related to language choice—or linguistic inequalities—in today’s scientific communication, topics dealt with from different perspectives (linguistic, econom-

ic, political) by authors from both Western and non-Western parts of the world.

After an interesting Introduction about the history of AILA, its original multilingual character, the rapid and drastic growth of scientific monolingualism in the so-called hard sciences, the social sciences and the humanities, the book opens up with a paper by Florian Coulmas (German Institute for Japanese Studies, Tokyo) that deals with the issue of English monolingualism in scientific communication and progress in science. It is written in the form of a Platonic dialogue between two ‘experts’ in the field: F which stands for Florian, and C which stands for ... Coulmas! This entertaining, lively and shrewd discussion is, in fact, a ‘conversation’ of the author with himself—very original paper, indeed; an excellent choice to open a Volume on the pros and cons of, *inter alia*, English monolingualism in scientific communication.

This opening chapter is followed by two papers that specifically deal with the problems faced by non-Anglophone scholars, called ‘users of English as an additional language (EAL)’, when writing their papers in English, the language that, for historical, socio-economic and political reasons, became the scientific *lingua franca* in the 1960s. John Flowerdew (University of Leeds, UK, previously City University of Hong Kong) takes the case of a bilingual Chinese-English Hong Kong doctoral student who, in spite of his extensive exposure to English, still encounters great difficulties to write and publish in this language, a topic and a context about which Flowerdew is an expert. In this particular paper, the author presents and discusses the controversial writing strategy quite common among EAL writers called ‘language re-use’ that consists in copying fragments of previously published articles and using them again in their own papers. This strategy is quite common indeed among EAL graduate students (and EAL writers, in general) because, on the one hand, they do not have the confidence in their own English to appropriately express what they want to say, and, on the other, because of the pressure put on them to publish in English-medium journals in order to graduate. Is this strategy identical to plagiarism, an issue about which so much has been written lately? Flowerdew, who sympathises with the plight of EAL writers, ends up his contribution by presenting some pragmatic ideas aimed at alleviating the immense difficulties EAL doctoral students and/or scholars face when writing in English.

There is one point I would like to argue upon. Towards the end of his paper, Flowerdew argues that in certain contexts, viz. when no editorial support services are available to the EAL writers (e.g. in developing/peripheral countries), “encouraging practitioners to publish in non-English, non-indexed journals might not be a good solution”. I strongly believe that a solution for EAL writers in such contexts would be to write their papers in their own language and publish them in top-quality journals, i.e. journals indexed in international databases. Such a move would not only help EAL researchers gain international visibility, but

<sup>1</sup> The acronym AILA was coined on its name in French, the leading language of the Association when it was created in the mid-1960s’ and held its first congress

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would also reduce linguistic inequalities in scientific communication and foster scientific multilingualism.

The third Chapter, by Cristina Guardiano, M. Elena Favilla and Emilia Calaresu (University of Modena-Reggio Emilia, Italy), also deals with EAL scholars' disadvantages. The authors, both fervent supporters of scientific multilingualism and of the 'linguistic rights' of non-native English writers, first present a review of the main stereotypes concerning English as the language of science with a special focus on non-Anglophone scholars' perceptions of the reasons behind the predominance of English in scientific communication. The authors then present the results of a pilot study conducted on a sample of Italian scholars from various scientific fields regarding language use and perception of language choice for scientific publications. The paper provides a good picture of what the situation looks like in Italy. It is interesting to remark that it is very similar to what can be observed in other parts of the non-English speaking world where writing in English is perceived as an ineluctable necessity (international prestige) rather than a matter of free choice. Regarding formal aspects, I would like to point out that the reading of the tables is quite difficult because they are in black and white (coloured tables would make the book even more expensive, see below). The authors could have used different 'designs' or patterns for each discipline, for instance, so as to enable to reader to readily distinguish one from the other.

In close relation with the results of the pilot study presented in the previous Chapter is the extensively documented article by Rainer Enrique Hamel (Autonomous Metropolitan University of Mexico) that deals with the pre-eminence of English in the international scientific periodical literature—in the social sciences, humanities and natural sciences—and the future of language use in science. To illustrate the situation, the author provides several very interesting (although at times unclear) tables and figures that display quantitative data about the share of the main scientific languages from 1880 till the end of the 20<sup>th</sup> century in six different disciplines. He also provides data about scientific publications in Hispanic America, especially Brazil and Mexico, emphasising the importance of both Spanish and Portuguese as languages of science in these two parts of the world. He then critically addresses the question of whether the hegemony of English, the "hypercentral language of the world" will create a total monopoly, at least at an international level, or whether changing global conditions may allow alternative solutions. Hamel closes his paper by advocating a plural language policy for scientific production and communication to avoid irreversible language attrition.

The following two chapters address a quite different issue related to the problems and/or disadvantages of the EAL scholar. Philippe van Parijs (The Catholic University, Louvain, Belgium), on the one hand, and Michèle Gazzola and François Grin (Geneva University, Switzerland), on the other, both deal with the economic aspect of the problem, although from two different perspectives.

Van Parijs starts his abstract and his paper with a bold assertion which will certainly strike the proponents of plurilingualism: "In science and all other domains that require communication across borders, we need one *lingua franca* and this *lingua franca* will be English." After reading the previous two chapters, this bold statement certainly comes as a shock. Van Parijs goes on arguing that the adoption of the native language of some as everyone's *lingua franca* unavoidably raises a problem of justice, and that the community whose language is being learned should subsidise the community which is learning up to the point where the cost become equal. The author proposes a criterion of fair burden sharing (proportionality of cost to benefit) and explores its policy implications. Obviously, the question to be asked is whether this linguistic tax on native-English speakers can be feasible at all. What about, for example, Third World English-speaking countries? Will their governments be charged as well as the British government will, for example? Certainly not. The author does refer to the different English learning communities with different per capita levels (the French vs. the Chinese, for instance) but makes no provision for developing countries (former British colonies) where English is spoken as a native language. The paper ends with several appendices that provide detailed information on how to estimate the Anglo fair share in today's learning cost. Beyond any doubt and whether we agree with the ideas put forth by its author, this chapter is the most thought-provoking, controversial and polemical of all, especially for those who sustain that linguistic diversity is as desirable as cognitive diversity (e.g.[3, 4])

Michèle Gazzola and François Grin from Geneva University also address the issue of linguistic equality from an economic perspective, but their approach banks on the economics of language and language policy evaluation, a field of research with a strong interdisciplinary orientation. The paper presents guidelines towards a general analytical framework to assess the relative efficiency and fairness of different ways of managing communication in 'multilingual organisations' (not only international organisations but also academic institutions, multilingual companies, etc) that have to cope with linguistic diversity for their internal and external communication. Although the paper raises some interesting points, we could wonder what it has to do with scientific communication per se, the topic of this AILA Volume.

The last article differs from all the others in the sense that it addresses the issue of language policy in a multilingual and multicultural country: Malaysia. Its author, Saran Kaur Gill (Kebangsaan University, Malaysia) explains, from a socio-political standpoint, the reasons why Malaysia experienced a major shift in language policy in 2003 for the teaching of science and mathematics in national and national-type schools. Indeed, national schools now teach these two subjects in English instead of in Bahasa Malaysia, the official national language, and national-type schools have been obliged to shift from Mandarin and Tamil to English to ensure homogeneity. The author particularly focuses on the Chinese community's responses to such changes and makes emphasis on how these recent developments are intertwined with ideology, politics and language policy. She very rightly argues that such a lan-

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guage policy threatens not only to bring to an end the socio-political balance that had been achieved through L1 (mother tongue) education, but also to lead to a loss of means of scientific conceptualisation in the local languages.

A discussion of the different issues raised in these articles concludes the Volume. It is written by one of the co-editors, Ulrich Ammon who makes some generalisations without entering into specific details. He first of all presents what he calls “reasonably safe knowledge”, i.e. a few basic facts that cannot seriously be called in question. He then provides a list of open questions that urgently require further research as well as policy suggestions, including a proposal to institutionalise the topic in AILA in the form of a committee entrusted with it and a request for more language norm tolerance vis à vis non-native English speakers or, as he himself phrased it in a previous publication [2] “the non-native speaker’s right to linguistic peculiarities”.

With this quote, I would like to take the opportunity to point out that the expression ‘non-native speaker’ (an expression I encounter in almost every paper that deals with the various issues at hand, see Cristina Guardiano, M. Elena Favilla and Emilia Calaresu in this Volume, for instance) does not seem appropriate. It should be ‘non-native ENGLISH speaker’. Indeed, aren’t we all speakers of a native language? By not mentioning ‘English’, we just assume that English is the native language of everybody. The same remark of course applies to the expression ‘native speakers’. It should be ‘native English speakers’, when we refer, of course, to those speakers who have English as their mother tongue. Ammon’s quote should thus read ‘the non-native English speaker rights to linguistic peculiarities.’ A very small detail indeed in such a fine Volume.

Another detail is the price of the book: it represents a very serious obstacle to the worldwide dissemination it certainly deserves. Such a high price means that AILA 20<sup>th</sup> Volume is beyond the reach of people who would be interested in reading it but who live in developing/Third World countries, let alone university libraries in the peripheral world that will not be willing to spend over 100 dollars for a social science book. This is a real shame, but I must unfortunately say that it is a recurrent problem of all the books published either by John Benjamins, Rodopi, Peter Lang, etc. who can be read by a privileged few only.

All in all, the Volume is a very interesting read that contains a lot of useful and sensible materials. It is, to my standpoint a timely addition to the field. I cannot but strongly recommend it to anyone who is interested in linguistic, economic and political issues related to scientific publication.

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## An antidote to ‘proper’ English



A. Parody. *Eats, Shites & Leaves. Crap English and how to use it.* Michael O'Mara Books Limited, 2007. ISBN 1-84317-098-1 (Hardback). 9.99 GBP. 160 pages.

The cover and proportions of this little book reflect those of the British bestseller *Eats, Shoots & Leaves*. The book declares itself to be about how the English language can be used and abused. The first words of the introduction are “Ever since man sought to express himself in the English language, there has always been somebody else telling him he has been using it incorrectly.” And later “...does it matter if it is not used well?” One of the bits of information in the book which might make you wonder if it does matter is that only 17% of native English speakers can spell the following words correctly: height, necessary, accommodation, separate, sincerely, business.

Basically (the true meaning of which according to the book is “this is going to get complicated”), the book is a jumble of amusing and educative examples. These are given under some delightful headings such as ‘*Needless to say, many words are better than one*’ or ‘*TUMA: totally unnecessary medical abbreviations*’. ‘*Why English is becoming redundant*’ traces man’s development from communicating by signs to spoken language and its degeneration back to smileys and emoticons. ‘*Signs of the times*’ includes the example “Automatic washing machines: please remove all your clothes when the light goes out.” ‘*I can see clearly now the brain has gone*’ has a quote that all medical writers will appreciate “Three kinds of blood vessels are arteries, vanes and caterpillars.” Under a list of politically correct euphemism involving ‘challenged’ we find “Verbally challenged (most English speakers)”.

We are told that there’s no rule that a sentence should not end with a preposition. This is a myth, the source of which is put down to a London bishop who thought it was impolite to round ones words off. And we are asked, “Do you find it reassuring that doctors call what they do practice?”

‘Barbecue’ is one of a list of words open to misinterpretation by non-native speakers who could think it means, “waiting in line for a haircut.” But then there are things we all know: The four most important words in the English language are listed as “I, me, mine, money”.

It’s fun and you even might learn something from it.

### Elise Langdon-Neuner

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**Webscout:**

## Personalised medicine

*by Joeyn Flauaus*

How can we guarantee that patients will benefit from taking drugs and how can side effects be reduced? Currently it looks like the future of medicine lies in personalised medicine as personalised medicine addresses these problems by tying dosing and therapeutic selection decisions to a diagnostic test, which is often genetically based. Every patient is unique with a unique genetic setting. These days we take drugs according to the one-size-fits-all approach ignoring that individuals react differently to drugs. Now there is a shift towards an individually tailored approach based on molecular diagnostics taking into account the differences in our genetic settings.

Pharmacogenomics, the study of how individual genetic differences affect drug response, is a field that is contributing significantly to personalised medicine. The knowledge of the way individuals respond to drugs can lead to maximum efficacy with minimal side effects. Consequently, the right drug and the right quantity can be selected. The Federal Drug Agency (FDA) has already indicated that they want pharmacogenomic data collected during clinical trials.

Don't think that the shift towards personalised medicine will only happen some time in future. Tests that evaluate the genetic basis for drug metabolism and define eligibility for targeted oncological therapies are already on the market. Pharmaceutical and biotechnology companies are turning more and more to personalised medicine to help improve the drug development process and speed the approval of new drugs.

I have put together a selection of websites on personalised medicine to invite you to form your own opinion on how the new era of personalised medicine will revolutionise the drug development process.

**<http://www.personalizedmedicinecoalition.org>**

The Personalized Medicine Coalition (PMC): the non-profit group PMC comprises a broad spectrum of academic, industrial, patient, provider, and payer communities. Their website provides all kinds of information on the topic of personalised medicine. The group seeks to provide an understanding of the concept and the health benefits of personalised medicine.

**<http://www.fda.gov/cber/gdlns/pharmdtasub.htm>**

The FDA Guidance for Industry for Pharmacogenomic Data Submissions: the specific criteria and recommendations for submission of pharmacogenomic data are provided in this guidance. The guidance also provides informa-

tion on how the FDA will or will not make use of pharmacogenomic data in regulatory decisions.

**<http://www.pharmgkb.org>**

The Pharmacogenetics and Pharmacogenomics Knowledge Base (PharmGKB) is a publicly available research tool developed by Stanford University with funding from the National Institutes of Health (NIH). Their aim is to establish knowledge about the relations among drugs, diseases and genes, including their variations and gene products. You can search extensive data bases (e.g., by drugs, genes, and diseases) to find information of particular relevance for pharmacogenetics and pharmacogenomics.

### **Realizing the Potential of Pharmacogenomics—Opportunities and Challenges:**

**[http://oba.od.nih.gov/oba/SACGHS/reports/SACGHS\\_PGx\\_report.pdf](http://oba.od.nih.gov/oba/SACGHS/reports/SACGHS_PGx_report.pdf)**

This report of the Secretary's Advisory Committee on Genetics, Health, and Society (SACGHS) on pharmacogenomics describes the opportunities originating from that field as well as the challenges in terms of product development and integration into clinical and public health practice. A number of recommendations and considerations in relation to pharmacogenomics research and development are provided.

If you find a web site that should be mentioned in the next issue, or if you have any other comments or suggestions, please email me at: [Joeyn.Flauaus@sanofi-aventis.com](mailto:Joeyn.Flauaus@sanofi-aventis.com).

**Joeyn M. Flauaus**

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## Ghostwriting on Youtube

Lanie Adamson, a member of AMWA who has been very active in the crusade for ethics in medical writing, has a piece in Youtube at <http://www.youtube.com/watch?v=u5IsErsBWtI>. The ghostwriting controversy is featured in the last of the three segments after chocolate and fitness.

Thanks to Adam Jacobs [ajacobs@dianthus.co.uk](mailto:ajacobs@dianthus.co.uk) for this information.



**Journal watch:**

## Improving the reporting of pragmatic trials and more on ghostwriting

by Nancy Milligan

### New guidance for reporting pragmatic trials

Pragmatic trials, designed to inform decisions about clinical practice, can be distinguished from explanatory trials which are designed to test causal research hypotheses [1, 2]. Pragmatic trials use design features that maximise the applicability of the trial's results to the usual care setting, and calls have been made for more pragmatic trials to be undertaken to inform real world choices. Poor reporting can reduce the usefulness of findings from these studies, but until now there have been no accepted guidelines on the reporting of pragmatic trials. In a recently published specific extension to the CONSORT (consolidated standards of reporting trials) statement, Zwarenstein et al have proposed guidance for reporting pragmatic trials to make explicit the important attributes of these trials with the aim of helping users to determine whether the results are applicable to their own situation [1, 3]. In developing the extension, two two-day meetings were held in Toronto, Canada in January 2005 and March 2008 to discuss ways to increase the contribution of randomised controlled trials to health care decision making, with a focus on pragmatic trials. 66 participants attended the two meetings including people with experience in clinical care, commissioning research, health care financing, developing clinical practice guidelines, and trial methodology and reporting. After the first meeting in 2005, a draft revised checklist and summary paper for the extension was drafted and circulated to a writing group who produced a draft summary paper. The draft was discussed and modified at the 2008 meeting then circulated to the CONSORT group for feedback before submitting it for publication. The meeting participants agreed that the CONSORT checklist and flow diagram did not need modification. However, they felt that eight items on the checklist needed additional text specific to the reporting of pragmatic trials: item 2 (background), item 3 (participants), item 4 (interventions), item 6 (outcomes), item 7 (sample size), item 11 (blinding/masking), item 13 (participant flow), and item 21 (generalisability). For each item, additional guidance was presented along with the standard CONSORT text, as well as an example of good reporting for the item and an explanation of the issues. Zwarenstein et al. hope that the new guidelines will "help editors, reviewers, trialists, and policy makers in reporting, reviewing, and using pragmatic trials", and encourage journals who have endorsed the CONSORT statement to also support CONSORT for pragmatic trials by including a reference to it in their instructions to authors [1].

### 'Ghostbusting' at Blood

In a recent editorial, the editor-in-chief and associate editor of *Blood* journal discuss ghost authorship based on a review article received, and rejected, by the journal in which a pharmaceutical company employee listed in the acknowledgements section was claimed to meet the criteria of a ghost author, i.e. the journal felt that the person had made a substantial contribution to the research or writing of the article, but had not been listed as an author [4]. It should be noted that this person does not meet the standard definition of ghost author as they were mentioned in the acknowledgements section; however, the failure to disclose that the employee worked for a pharmaceutical company and clarify the role this employee played in the submission would be considered bad practice according to most guidelines. All authors are asked to complete a detailed conflict-of-interest disclosure at the time of submission to *Blood*, but the editors suggest that ghost authors, who by definition are not listed as authors, present a real and major problem for journals. The editors are particularly concerned about primary research articles because of the potentially large number of people involved in designing, carrying out, and reporting clinical trials. They offered that if a professional writer or researcher is used then the EMWA principles should be adhered to: are the authors guarantors of the article; was the professional writer advised by the authors before starting the writing assignment; was there transparency, that is, were the writers and researchers identified appropriately on the authorship line or in the acknowledgements section; does the professional writer have the appropriate expertise and background to provide substantive input to the background research or writing of the article [5]? The *Blood* editors also emphasised the importance of first and senior academic authors taking full responsibility for the material. They finished with an assurance that the editors and staff at *Blood* "will do everything possible to ensure that our readers receive information from *Blood* articles that is as unbiased as possible, with full disclosure of possible conflicts and acknowledgement of the participation of all writers and researchers", and invite *Blood* readers to join them in their 'ghostbusting' mission [4].

### Three perspectives on tackling ghostwriting

Ghostwriting is considered bad publication practice in the medical sciences, and some argue that it is scientific misconduct. In a recent debate, this issue was considered by three differing perspectives: a researcher (Peter C

## Improving the reporting of pragmatic trials and more on ghostwriting

Götzsche), an editor (Jerome P Kassirer), and a group of professional medical writers (Karen L Woolley, Elizabeth Wager, Adam Jacobs, Art Gertel, and Cindy Hamilton) [6]. The article started with the views of Peter C Götzsche who argued that because scientific communication depends on trust, then ghostwriting should be considered scientific misconduct and handled accordingly. He put forward some suggestions that might reduce the prevalence of misappropriated authorship: 1) all journal articles should list the contributions of the authors; 2) editors should explain in their instructions to authors that ghostwriting is scientific misconduct and will be exposed if detected; 3) editors should ask authors to specify who wrote the first draft of the paper, and should contact these people to confirm their contribution if they are not authors; 4) editors should not accept meaningless statements in the acknowledgements, such as 'We thank XX' or 'XX provided editorial assistance'; 5) guidelines on good publication practices should be followed; 6) authors should retain copies of drafts to facilitate investigations of possible misconduct; 7) ethical review committees and drug agencies should not accept protocols without named authors to ensure accountability; 8) journals and PubMed should use the term 'misappropriated authorship' to properly document misconduct; and finally, 9) editors should insist that medical writers be authors as it is not possible to write a paper without judgement and interpretation of data. This last point is particularly interesting as it is not the mainstream view held by organisations such as EMWA and the International Committee of Medical Journal Editors (ICMJE) [5, 7]. These groups favour the position that professional medical writers should be acknowledged but do not usually qualify for authorship. Journal editor Jerome P Kassirer argued that ghostwriting is difficult to define and that we need more evidence of its frequency and impact. Kassirer suggested that overtly biased ghostwritten articles can jeopardise medical knowledge and patient care, and damage the public's trust in both the pharmaceutical industry and the medical profession. After discussing various definitions and cases of ghostwriting, he suggested that editors of medical journals should devote more effort to defining what constitutes appropriate and inappropriate participation in studies and manuscript preparation. He suggested that at the very least, editors can demand transparency by asking: who were the trial designers, conductors, researchers, data managers, and statisticians; and who wrote the manuscript and signed off on the final draft? Kassirer ended by suggesting that we should 'just say no' to ghostwriting. Finally, the group of medical writers argued that professional medical writers can be legitimate contributors to manuscripts, but that ghostwriting is dishonest and unacceptable. They suggested that professional medical writers have health care knowledge and communication expertise, and abide by ethical guidelines for medical writers. They also suggested that although medical writers assist in the preparation of documents, they should ensure that the authors control the content and that appropriate disclosures of funding and involvement are made.

They offered the medical writer's perspective on three ghostwriting questions: 1) Why don't we ban medical writers? The writers suggested that this strategy has not been embraced by many journal editors, because of the huge contribution of professional writers to the medical literature; and EMWA support disclosure rather than prohibition. 2) Why don't we develop more guidelines? The writers suggested that we already have sufficient existing guidelines and the focus should be on adherence to these guidelines rather than development of new ones. 3) Is there anything practical we can do? The writers proposed a mandatory checklist to help detect and avoid ghostwriting. They suggest that the checklist could be included in journals' instructions to authors as an extension of the journal editors' 'gatekeeping role'. The checklist prompts authors to acknowledge professional medical writers and their funding source; to confirm that the authors controlled the main points, outcomes, and data reported in the manuscript; and to verify that medical writers could provide evidence that guidelines on ethical writing practices were followed [6].

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## Themes of upcoming issues of TWS

The June issue will have a writing style theme and will also introduce a new **Linguist's corner** featuring abstracts on research relevant to medical writing.

The September 2009 issue, which will be guest edited by Adam Jacobs ([ajacobs@dianthus.co.uk](mailto:ajacobs@dianthus.co.uk)), will have a statistics theme.

Articles (up to 2500 words) and boxes (up to 1000 words) in line with these themes or on any topics of interest to medical writers or of interest to editors, translators, language teachers and linguists working in the medical field are very welcome.

### Elise Langdon-Neuner

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## Out on our own

Many of you have already accessed the minutes of the Freelance Business Forum at the London Conference on the website, but just a reminder for those of you who have not yet managed to do so: after logging in, go to the Discussion Forum, open the Freelance Section, and one of the items contains a link to the minutes. Any comments should be made within the Discussion Forum to encourage discussion. If you want to be emailed when a new comment is posted on an item that interests you anywhere in the Discussion Forum, click on 'Subscribe' at the bottom of the item.

The Freelance Discussion Forum has now been up and running for about 3 months and offers a much requested improved option for airing views and fielding questions than its forerunner, the Email Discussion Forum. There have not been many contributions so far and we have been wondering why—it surely cannot be that there are no burning issues out there. So here is another call to visit the Discussion Forum and make your presence felt.

The costs of EMWA conferences for freelancers have been controversial in the past, so we asked three freelancers from different countries to track their expenditure on

attending the London Conference, to give freelance members an idea of what costs might be when they attend future conferences. Our three chosen colleagues felt that their outlay was a worthwhile investment. Read more in the following pages.

In this issue, Ursula Schoenberg shares some thoughts on how to say 'No' to clients and has some useful suggestions to dispel that lingering feeling that you might have taken a wrong decision when you turn down the offer of a job, especially from new clients. And Alison McIntosh tells us about two potential jobs she turned down (we suspect Ursula and many others would have done the same!). In a new feature, Raquel Billiones takes a frank look at the trials and tribulations of a week in the life of a freelance medical writer which will find resonance with more than a few working parents!

The Ljubljana Conference will soon be upon us. We look forward to seeing you there!

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## How not to ask a freelance medical writer to help you with your writing task!

I have withheld the names of people to protect their identities but these are real enquiries that have not been altered in any way (including the pseudo mobile phone texting words in the second request).

Received by email two days before Christmas: "I reside in the US. I am leaving on a 3 week vacation tomorrow and need a literature search and summary on a drug's side effects to be ready in about 3-3 1/2 weeks from now. I will give more details after contact. What are your fees?"

This I received from a student: "I am a medical student

and require a literature review to be conducted regarding a patient, the literature review should relate to my patient, I should also assess the strengths and weaknesses of the literature. I can select a patient from a variety should it make it any easier conducting the literature review, i can also provide an example. Can you please advise me if you may be able to help." Unfortunately they did not supply the name of the university department they were studying at, or I would have contacted them to make them aware of this request.

I turned these requests down. What would you have done? Have you had any similar requests from unthinking potential clients?

### Alison McIntosh

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## When to say “No”

by Ursula Schoenberg

Put any random group of freelancers together at a table, and I will place bets with you that sooner or later the perennial topic will crop up: when do you turn down a potential new client? This is a tough question triggered by the world's worst advisor: fear. When you put the phone down after a “No, thank you”, the following cascade of doom-laden thoughts tends to assault even the most resilient of minds: A) That client was the best one in the world and I should have grabbed them at all costs; B) They will never come back again; C) I could have pushed the deadline for Company X to fit the contract in; D) That extra income would have come in handy; E) Now I'm jinxed and the phone will never ring again; F) I will end up in penury and will have to go live under a bridge.

The more experienced you are in the world of ‘precarious’ employment (this is what the Germans call it, and please note the derogative and fear-inspiring undertone), the less time you spend worrying about it. But seasoned colleagues have assured me that these thoughts never go away completely. You have to learn to live with them—like boils or a herpes virus. I turned down three potential new clients last year, and when I wake up at 3 in the morning, I start obsessing about it. This is in spite of the fact that I'm in my 6<sup>th</sup> year of freelancing and have acquired two delightful clients with considerable work volume and long-term potential instead. This is rational behaviour? No.

So in order to banish the ghosts and perhaps give other freelancers some help on this issue, I've gathered a few examples from my own experience that may serve to give you a feeling for when your inner ‘alarm bells’ should go off. If you encounter one or more of the following, you might do better to just say “No”.

### The incredible expanding project

We've probably all had experience with this phenomenon: you are in a project, and it keeps getting, if not bigger, then at least longer. When it happens with established clients, you have to roll with it (preferably in a Zen state of mind). But when it is already obvious with a potential new client, try to bow out. I got an e-mail from a new client with a short project brief and the request to call back. When we started discussing the project in more depth on the phone and I asked some searching questions, the 20-page white paper suddenly metamorphosed into 40 pages (“Oh yes, and we need the same material for patients and medical service providers, but the language should be tailored to

each target audience, can you do that?”). Of course this was all required in the same super-tight deadline frame, no extension possible. And to top it off, the client could not tell me when she would be receiving input on the project from her client. I said “Thanks, but no thanks.”

### Ghost companies

Never ever work for a company whose website has impressive mission statements, extensive philosophies, trendy background music and/or fancy flash animations—but no people mentioned or pictured on the site. To work professionally and successfully, you need a certain degree of accountability. And what does it say about a company if the people you will be accountable to are obviously marginal entities?

### The risks of mega-projects

When a new client has a project with such a large volume that you would have to work on it exclusively for several weeks, turn it down. As freelancers, we all learn to juggle clients and deadlines, and sometimes you have to make decisions about birds in the hand and in the bush. You don't know these people yet. You don't know how they handle projects. You don't know if they will pay you, and if so, whether they will pay in a timely fashion. And while you are working on their stuff, chances are that either current clients or other new clients will give you a call. You then have two (not very attractive) options: either you turn them down, or you end up overcommitting, working 24/7, collapsing, and needing a rest cure. If the mega-project sounds really interesting, or there is some other reason you want to take it on, at least consider asking for a down payment of 30 to 50 percent. This is a practice that seems to be more widespread in the United States than in Europe. So the new client may blanch at this request, and one of two things will happen: they will go find someone else or they will comply with your conditions, in which case you can at least pay for the rest cure after the project is over.

### Dubious practices

A new client called me once with the following request: they would like to get to know me, preferably the next day at their office. If they liked what they saw, we would have a meeting with their long-term pharmaceutical client several days later to discuss a large project with a tight deadline. At this meeting, they would introduce me as someone they had been working successfully with for several years. I got out of it. My rationale: if this is the way they treat clients, how are they liable to treat freelancers, who are considerably further down the food chain?

>>>

## &gt;&gt;&gt; When to say “No”

**Play dead on Fridays—and in December**

I have a freelancer friend who does not answer her cell phone from 3 p.m. onwards on Fridays. Why? Because, to quote her: “Everything that comes in on Friday afternoons is garbage”. Either it is a project that has to be finished on Monday morning. Or you are talking to a new client who is so badly organised that they did not realise on Monday or Tuesday that a new project requires organisation and planning. This phenomenon can also be observed with regard to the fiscal year. Those are the phone calls at the beginning of December when someone has woken up to the fact that an allocated budget has to be spent by the end of the year—or else. Everyone is free to do what they choose. But if I have the choice, I hate to work with people who are badly organised. My advice: play dead on Fridays. And only work with your established clients in December.

**The John le Carré scenario**

Sometimes freelancing can be very diverting. I once got a phone call from a man who purported to have worked for a large pharmaceutical company and now wanted to “write a book about what really goes on behind the scenes”. These sorts of requests can be amusing, but they are not really serious projects to get involved with. Unless, of course, David Cornwall’s fact checkers come calling ...

**Pigs in a fog**

Try not to get involved with clients that don’t let themselves get pinned down. With a little experience, you can usually intuitively recognise these people during the first phone call. They are unclear about deadlines. They think there will be research that you will have to do on a topic, but the amount remains unspecified. You do not know who your main contact will be, or the contacts keep changing. If you take on clients like this, work will be frustrating. Don’t do it. Remember—life is short.

I wish there was a divining stick to simplify the process of identifying thankless clients. But since there isn’t, I can only assure you that one does get better at it with time and practice. For you beginning freelancers: make yourself a standard list of questions about a project that you keep next to the phone. When someone calls, go through the list. Stall a little bit to draw out the conversation and try to get a feeling for the person at the other end. And don’t ever be afraid of listening to your ‘gut feeling’. Because if your emotional brain is sending panicked messages to your rational brain that this is not a good idea, you might do well to listen.

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**English FAQs: Do I use the plural or singular form of the verb when using ‘percent’?**

This problem is associated with the verbs *to be* in the present and simple past and *to have* and any other verb only in the present. The reason for this is that the present (*is, are*) and simple past (*was, were*) verb forms of the third person singular and plural are different for *to be*, and in the present (*has, have*) for *to have* and all other verbs (e.g. *puts, put*). These forms in the simple past are the same for *to have* (*had, had*) and all other verbs (e.g. *took, took; showed, showed*). The difference in verb number is therefore not obvious in many cases and leads to insecurity when using *to be* in these tenses and *to have* in the present.

In formal writing, percent values are almost always followed by *of*\*. The choice of the number of the verb depends on the number of the object of the preposition *of*. Hence: *More than 90% of arginine vasopressin in the circulation **is** bound to platelets, resulting in underestimation of the actual amounts released.* In this sentence, we are talking about ‘part of a whole’: of all arginine vasopressin (the object of the preposition *of*), more than 90% is bound to platelets. A further example: *More than 50% of the tissue **was** unsuitable for analysis.*

But: *60% of the serum samples **are/were** unusable because of haemolysis.* In this sentence, the object of the preposition *of* is the *serum samples* which is in the plural and means ‘some of many’; the verb is therefore in the plural. A further example: *More than 90% of the patients **were** obese.*

The following examples illustrate the use of *to have*:

- 50% of the cartilage **has** evidence of urate deposits/50% of the samples **have** incorrect labels (has and have are appropriate because cartilage is singular and samples is plural, and the difference is evident from the number of the verb).
- 50% of the cartilage **had** evidence of urate deposits/50% of the samples **had** incorrect labels (number of the verb looks the same, but the first verb is actually singular and the second is plural).

Like the example with *had* above, the following illustrate how you cannot distinguish between the number of the verb in the simple past with the verb *develop* representative of all other verbs: *50.0% of the herd **developed** (singular) acute diarrhoea within 4 hours of dosing/65.4% of the dogs **developed** (plural) twitching of the hind legs after 3 days.*

\* In less formal writing and when speaking you may skip the prepositional modifier of the percent (20 horses were enrolled; 25% were mares.), but this does not affect the number of the verb.

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## Cost of attending London Conference

by Alistair Reeves

I didn't actually hear any grumbles in London, but at previous conferences over many years, freelance colleagues have complained on and off that EMWA events are (too) expensive for freelancers. So we asked three freelancers from different countries to track the cost of attending the 27<sup>th</sup> Conference in London, from leaving home to getting back (not taking 'lost' earnings into account), and we'll be doing the same for three colleagues from different countries who attend the Ljubljana conference in May 2009. When I see what commercial training events cost, I always think EMWA offers excellent value for money. I also assume that in most countries, as in Germany, expenditure on professional training is tax-deductible for freelancers, which means that depending on your income and country, you can probably knock off between 20 and 40% of the costs of attendance from the actual sum spent. That coupled with all the learning and networking opportunities means that EMWA really does offer a unique service. At least I think so.

We approached Moira Cockell from Switzerland, Anne Murray from Spain, and Iain Colquhoun from Scotland to track costs, and also asked them to tell us whether they thought EMWA events offered good value for money. So let's see what they thought. Their expenditure is summarised in Table 1.

### Moira Cockell



As a part-time freelancer with a second occupation, I aim to budget time and finances to accommodate one EMWA conference a year. Living up to my Scottish origins, value for money is always an important factor in my calculations; so at the three previous meetings I've attended since joining EMWA in early 2006, I lodged in small, modestly priced establishments close to the conference venues. I've never felt that staying offsite interfered with networking opportunities. It also gives me a flavour of the local atmosphere that isn't easy to find in mega-hotels with conference facilities for several hundred participants. This year, exceptionally, I managed to attend both the spring and autumn conferences by combining the second with a family visit. My husband agreed to take a couple of days off work and I booked two tickets to London.

It's a one-hour journey by car to Geneva airport from our almost-mountain village of Savigny in the canton of Vaud, Switzerland. In theory, neighbouring Lausanne's brand new, fully automated metro has reduced the total time it takes us to get to the airport by public transport, to just one hour and a half. However, a month after opening, the metro was still having sporadic teething troubles. With a weekend forecast of snow at low altitude, we were concerned about getting stuck downtown after the return flight on Sunday evening. The cost of airport parking fees for four days is similar to the cost of public transport for two adults, so we eventually decided to drive to Geneva.

The trip to London cost much less than I'd normally expect to spend on attending an EMWA conference. I usually run up quite a bill for mobile phone and Internet access when travelling. This time I didn't need to pay for virtual contact, as the only manuscript I had brought to work on was one of my own. Other than travelling expenses and conference fees, I had practically no costs to pay. We stayed with my parents-in-law who live in central London. The conference venue was a twenty-minute tube ride from their home. That was not only fortunate for my purse, but also for my poor feet, which suffered all weekend from the singularly inappropriate footwear I had brought along. Note to self: for the next conference trip, pack comfortable flat shoes.

For future reference, here are a couple of other tips from a supposedly seasoned London traveller: I only just discovered that London's rail services have special offers not available from the automatic distributors. On arrival at the train terminal of Gatwick Airport, it is worth the extra few minutes of queuing to buy a ticket at the manned kiosk. For instance, our tickets to central London and back were £4 cheaper per head because the return leg was on a Sunday; the standard train line is also considerably cheaper than the Gatwick Express and gets to central London in much the same time.

I didn't attend the London conference dinner because of family commitments. However, the other social breaks in between sessions were a useful opportunity to seek advice about which workshops to choose in forthcoming conferences. I completed the requisite number of credits for a foundation level EPDP certificate in spring of 2008 and hadn't yet given serious thought to enrolling for the advanced certificate programme. EMWA's advanced workshops cover lots of topics that I'd like to learn more about, but I did wonder if I was too far from the profile of a "real" medical writer to benefit from them. Having stepped into

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## >>> Cost of attending London Conference

freelance writing and editing directly from a background in basic life sciences research, I don't expect to get much on-the-job experience in regulatory affairs or clinical trials reporting. In the end, I opted to sign up for two of the workshops offered in London—one at foundation level and one at advanced. Both turned out to be great choices, well worth attending for their inherent value outside of collecting credits for the certificate programmes. I'm looking forward to attending other foundation and advanced workshops and will probably re-enrol for credits before my next conference. It is always a huge pleasure to be in an interactive environment where people are not only motivated to learn but willing to reciprocate by sharing their own knowledge and experience, so to me, the EMWA conferences really have great value as a learning opportunity. Certainly, the efforts that both workshop leaders and participants put into the pre- and post-assessment exercises have a lot to do with the success of the format. It ensures there is a high level of commitment all round. In my experience, one doesn't need to be employed by the pharmaceutical industry to profit from the many insights shared in the workshops, discussion forums and lectures. The London conference's opening lecture by Professor Ian Needleman was a particularly inspiring reminder that the quality of research and the quality of research reporting are interdependent entities. No matter who pays our salary, we all share a responsibility to aim for the highest of standards.

This extremely-good-value-for-money, conference-cum-weekend-break almost cost more than I had bargained for. A shutdown of all train services from London to Gatwick on the afternoon of our departure threatened to leave us (and hundreds of others) stranded at Clapham Junction. We took a snap decision and caught the only mini-cab still available in the area, sharing the cost of the trip with another thwarted traveller. Although we arrived in time for our scheduled flight back to Geneva and avoided paying for a new one, we were very lucky to do so. The broken railway line caused serious distress for many would-be passengers who arrived too late to fly. The experience prompted me to reflect that the small amount of travel I do these days is just about right for my tastes. I'll be continuing to attend EMWA conferences annually for some time to come.

### Anne Murray



My journey started by car from a village in Tarragona to Barcelona where I left my car at the airport. Even though I live just over an hour from Barcelona, I would have had to catch a train at 07.30 in the morning to catch a flight leaving at 4 in the afternoon so I opted to drive and leave my car at the airport, at a cost of €16 a day.

I flew to Luton and returned via Stansted as these were the cheapest options I could find. I chose a hotel that was close

enough to walk to the conference venue and had broadband access, and it actually worked out a lot cheaper than I am used to for London thanks to the favourable exchange rate at the time.

I am a freelance medical translator and author's editor and in 'our world', EMWA is expensive! I have been an active member of the Mediterranean Editors and Translators (MET) Association since 2005 and am used to paying about €120 for a 2-day conference with a 3-hour training workshop included in the price and additional workshops available at about €30-€60 each. MET has a strong focus on research articles and author's editing and meets my continuous professional development (CPD) needs well. Motivated by my experience with MET, I decided to look for further CPD opportunities and found that EMWA's workshop programme was highly relevant to my work, so I decided to give it a go and am happy to have done so. The sessions are well organized, motivating, and of high quality. In answer to the question as to whether I find EMWA events good value for money, I would say that the conferences per se are not, as they seem to simply provide a framework for the workshops, which one pays for apart. If one chooses not to do the workshops, then €175, in my opinion, is expensive for an opening lecture and networking opportunities which—in my case—are of limited value, perhaps because I am not a medical writer. The workshop programme, however, is good value for money in that it provides content packages and insights that aren't so conveniently available elsewhere in Europe. Time will tell whether the investment will pay off financially, but it has definitely been worthwhile so far in terms of what I have learned and the added value for my work. It has also given me sufficient confidence to be able to transmit the knowledge I have gained to my clients, many of whom have had little or no formal training in authorship or familiarity with journal practices.

### Iain Colquhoun



I live in Scotland, about 3 miles distant from the small villages of Braco and Muthill, and about 7 miles from Gleneagles Hotel, which gained wide exposure at the time of the G7 summit in 2005. Gleneagles actually has its own train 'station', but few trains stop there these days, so I joined the train at Dunblane.

Well ... I would have done, had I been travelling on my own as I usually do, but on this occasion I travelled not only with my daughter-in-law (who also attended the conference), but also with her 6-month-old baby ... and her mother! I do have the total costs filed away somewhere, but looking at them is definitely not good for my health, so I've decided just to present the costs I would have incurred had I actually travelled in my normal fashion.

## Cost of attending London Conference

Having trained as an ecologist in a past life, I try to minimise my carbon footprint where possible, so usually take the train. The station is not far away, and I do not bother putting small mileages through my accounts—life is too short—but I have included what the figure would be if I did. On this occasion, we did undertake the last part of the journey by train, but on disembarking at Kings Cross, thoughts of keeping that carbon footprint down rapidly vanished when I contemplated the task of getting me, Nicola, the bairn<sup>1</sup> and the ‘outlaw’<sup>2</sup>—plus luggage—from the station to the conference hotel, so a taxi fare is included in the table below. I ended up thinking it was good value: 3 adults, suitcases, bags, a bairn, and a mountain buggy.....!

In the circumstances, we did stay in the conference hotel—definitely the easier option for all of us, but had I been on my own I would normally have done so in any case. I did not attend the conference dinner as it did not particularly appeal to me, nor did I spend anything on an Internet connection as I decided that I was going to have a break from all that—in addition to writing, I also provide IT support on a limited daily basis, and I felt that if I went online I would be just too accessible! Had I needed to, I do have a mobile

3G USB modem or ‘dongle’ which, at €11/month, is very good value and very much cheaper than hotels.

On the way back, we managed to load the taxi in half the time, and all in all had a very enjoyable and productive time. When you add in all the ancillary benefits of attending an EMWA conference, particularly the opportunities to meet friends and colleagues, I feel the conferences are good value. But I’ll be travelling lighter next time...!

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It is no surprise that the effects of staying in the conference hotel or with relatives are evident in the overall cost of attending the conference. Had Moira stayed at the conference hotel, she would have spent € 1157 instead of €771, and had Iain stayed in Anne’s hotel, he would have spent €997 instead of €1203.

Any members who would like to track the costs of attending the Ljubljana Conference this year should contact Sam or me before the conference.

**Alistair Reeves**

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**Table 1** Cost of attending 27<sup>th</sup> EMWA Conference, London, England, November 2008

Cost item	€					
	Moira		Anne		Iain	
	Switzerland		Spain		Scotland	
Travel	Car to and from airport, parking, flight, train, tube, taxi share to Gatwick	212	Car to and from airport, parking, flight, train, tube	274	Car to and from station, train and taxi to and from conference hotel	153
Accommodation	With relatives	0	Not in conference hotel, 2 nights	180	Conference hotel, 2 nights	386
Conference and workshops <sup>a</sup>	Registration, 1 foundation, 1 advanced workshop	520	Registration, 3 foundations workshops	580	Registration, 2 advanced workshops	595
Meals and refreshments <sup>b</sup>	Excluding conference banquet	39	Excluding conference banquet	55	Excluding conference banquet	69
<b>Total</b>	<b>771</b>		<b>1089</b>		<b>1203</b>	

<sup>a</sup> Including registration (€175) but not enrolment on EPDP (€100)

<sup>b</sup> This does not include the conference banquet (€50) because none of the participants went to it.

<sup>1</sup> Wiktionary definition: Etymology: Old Norse *barn* and Old English (Anglian dialect) *bearn*. Compare West Frisian *bern*. Noun, bairn (plural bairns) (Northumbrian, Scotland, and parts of Northern England) A child or baby.

<sup>2</sup> Jocularly used in British English to mean ‘in-law’.





## A week in the life of ... Raquel Billiones

by Raquel Billiones

When Sam Hamilton and Alistair Reeves asked me to write about my typical week as a freelance medical writer, I was reluctant. After all, I am not your typical (and successful!) medical writer, certainly not one whose weekly travails will inspire or entertain other colleagues. Here are the reasons why:

- I only work 3 days a week, the other 2 weekdays dedicated to being a mother to twin boys and wife to a busy banker.
- Despite my small capacity, I haven't yet reached the point where I have to turn jobs away as many of my colleagues do.
- It goes without saying that I don't earn enough to support my family but it is nice to be able to pay for my own shoes and my trips to the EMWA meetings.

But then I thought, why not? I am always in search of that ever elusive life-work balance and maybe upon reading this weekly diary, some enlightened soul out there can give me some pointers towards that goal.

So what is my typical week? There's no typical week for me, only a good and a not-so-good one. So here it is ... a good and a bad week in the life of a not-so-successful medical writer.

### A perfect week...

**Monday.** I start the week by taking Monday off from medical writing. Seriously. The kids are at home so I would do most of the household chores on Monday. Actual medical writing work starts on Monday night when I check and reply to my emails and prepare a work plan for the days ahead.

**Tuesday.** I may start the day by taking the kids to preschool but then I may not, depending on my husband's schedule. Preschool, by the way, is a 45-minute commute each way. And if you are wondering whether there is no smarter alternative to this apparent waste of time, I refer you to UNICEF's Innocenti Report Card 8 on "early childhood education and care in economically advanced countries" [1]. With Switzerland's rather abysmal performance, you will understand why this is the only way. My sons only go to the preschool 3 days a week and my husband and I split the preschool drop off/pick up responsibility 50-50, so it's not too bad.

On a typical week, I would work on several projects in parallel. Regulatory work would require 2 full days of the 3 I have. A perfect Tuesday would be 8 hours of work inter-

rupted by phone calls, a jogging run and a light lunch. The working day ends at 5 pm when I have to head for preschool pick up.

**Wednesday.** This is another day off from medical writing for me and is basically reserved for playdates, swimming lessons, football practice, and other extracurricular activities. A couple of hours on Wednesday evening in front of the computer are used for administration work such as filing and book-keeping.

**Thursday.** A perfect Thursday would be 8 hours of uninterrupted regulatory work. The project is right on track and the clients are happy. With music in the background and a thermos flask of tea, I sit at my desk and do the work I love. I might get a phone call or email from a headhunter, to which I would politely refuse by saying "Sorry, I am a happy freelancer". But it sure is nice to know that one is needed. Thursday evening is movie night with friends—a great way to wind down.

**Friday.** Friday is the day for small but nonetheless enjoyable web projects I do regularly. Writing short articles for the web media is a nice break from clinical documents. They are mostly review articles on "cutting edge" issues, from melamine to medical marijuana. Another jogging run in perfect weather conditions would be the perfect ending to a perfect medical writing/mothering week. I'm ready for a relaxing weekend. And I get almost perfect marks for time management!

Now, this is not a perfect world, and a week can turn bad ...

### A worst-case scenario week...

**Monday.** A bad Monday can start with a sniffling and rather crabby preschooler. This may be topped up by a husband going off to New York for a one-week business trip.

**Tuesday.** A week of single parenthood means 6 roundtrips to preschool. That is 6 x 2 x 45 minutes. This Tuesday would then be a short working day for me and I can already feel the stomach acid building up. If I am lucky, the sniffling preschooler would be better today and I wouldn't get any phone calls from preschool teachers requesting early pick-up. To add insult to injury, this might turn out to be a week of difficult clients. Difficult clients for me are those who demand output but do not deliver inputs. They are those who ask for 3 review cycles and expect 6. They are the ones who put the deadline two weeks ahead of schedule and tell me only two weeks later.

## A week in the life of ... Raquel Billiones

**Wednesday.** On a week like this, I tend to improvise. An afternoon at an indoor playground can give me a few hours on my laptop to catch up on the backlog from Tuesday. Never mind that other moms would stare at me disapprovingly while my boys practice anarchy.

**Thursday.** The sickly preschooler might have to stay at home today but we still have to drop off his twin brother anyhow. Yes, I know. I can take the easy way and keep both at home. Unfortunately, this is against the family's GPP—good parental practice guidelines. We should treat each twin as an individual. Another item in the guidance is a maximum of 20 minutes TV time each day. Debbie Jordan suggests allocating a couple of hours every few days for emergencies like this [2]. But what about a week of almost non-stop emergency? I turn off the phone so that the client doesn't catch me in the middle of a tantrum session. Forget about jogging runs and movie nights. This is going to be one long Thursday night.

**Friday.** On Friday, the preschooler might be well enough to go to school but then he might not. I ask for a deadline extensions. The backlog is up to my neck, the stress levels all time high. I order the babysitter for the afternoon, wincing at the thought that her hourly rate is a fourth of mine but she doesn't pay taxes on hers. I look forward to having my co-parent back that evening.

**Weekend.** As expected, the working week has to be extended to Saturday and Sunday just to catch up on the "lost" hours of the week. Luckily, my husband is a capable, hands-on father once he's around. I feel a little bit "off" myself. And it is at times like this when I wish I could call in sick. But there is nobody to call. I am my own boss. Now, where are those job offers again? Usually by Sunday, things will have settled down and I will be ready for the (hopefully good) week ahead.

Now, you may ask—what is the bad week to good week ratio? I would say it's currently 1:5. And it gets better as the kids get older. Maybe one day I might even increase my working capacity to 4 or 5 days and earn more. But then maybe, I might not. Maybe I would follow Wendy Kingdom's advice and take time to "look at the real world rather than a computer image of it" instead [3]. And maybe, just maybe, I will achieve that life-work balance after all.

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## The Coffice

With the trend to more and more people working at home, new terms are constantly being coined to make what we call our 'home office' less of a drag. Many of us are familiar with SoHo (small office, home office), WAHM, WAHD, and WAHP (work-at-home-mom, dad, or parent). But this is the first time I've come across this one—the 'coffice'. It simply means working in a coffee shop. According to the Boston Globe [1], coffices have become a phenomenon in the US where more and more people work in coffee shops, though not from behind the counters. This probably has something to do with the availability of free wireless LAN offered by most coffee chains as a marketing ploy. What they haven't taken into account was the need for a large number of power sockets, which probably wasn't in the original plan and design of already existing coffee shops.

The lack of power sockets and the fight for a favourite table seem to cause 'turf wars' and 'coffice tensions' according to the Globe among coffice mates (coffee drinkers) or with the office managers (the baristas). Sounds like your usual office politics, eh?

I must admit I do go and work in a coffice once in a while, for a number of reasons, namely:

- when my Internet service provider acts up
- when I have an urgent need for some human contact and a chat, if only to order a cup of latte macchiato
- when I have a few minutes to kill between client meetings and preschool pick up time.

Of course I make sure that I only do nonconfidential work at the coffice. You never know who is looking over your shoulders.

However, compared with the US, coffices in Switzerland aren't yet up to scratch and it's not just the power socket that is the problem. Free Internet access at most Starbucks in Zurich is only 30 minutes per cup of coffee. Most shopping centres have only Hot Spots for paid Internet access. Coffice workers have to share the space with many mommies with their babies and toddlers on a rainy day. (Mind you, I can be a coffice worker, a mommy, or both). And finally unlike in many parts of the developed world, Zurich coffices are not smoke-free (at least at the time of writing) but the Swiss are working on it.

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**Editor's note:**

This delightful piece by Raquel reminded me of when on a recent holiday I enquired as to the whereabouts of an Internet café. I was told where to find one with the gratuitous comment, "It's the café where you can't buy a cup of coffee".

## Gained in translation

### Science at the multilingual crossroads

Welcome to the second issue of the translation section of *TWS*, which brings to you both academic and entertaining tones. In their article on a semi-bilingual language guide developed on the basis of their many years of experience as medical translators and editors, Michael and Ingrid Friedbichler introduce KWIC-Web, a German-English dictionary that organises medical terminology in a modular fashion based on medical specialities and subspecialties.

Extracted from a huge corpus, the strength of this innovative approach to compiling a dictionary is that it provides 'Key Words in Context', embedding medical terms and phrases into full sentences taken from the medical literature and networking them into a semantic 'Web'. The compilation is designed to fulfil the dual purpose of supporting English language learning for native speakers of German and functioning as a bilingual medical dictionary, which, thanks to its semi-bilingual structure, also perfectly lends itself to being expanded to languages other than German. To take a glimpse of what the dictionary looks like in action, turn to page 46 for Laura Russell's review of both the print and electronic versions of KWIC-Web.

One passage in the article by Friedbichler and Friedbichler caught my attention, i.e. the one suggesting that both medical researchers and health care professionals in general need to be bilingual in their respective domains. Most will agree that non-Anglophone scientists and those working in academia should be bilingual—even though I wonder whether the call for 'full' bilingualism does not place the bar a bit too high.

The case, I believe, is less clear for other health care professionals, such as the general practitioner around the corner, community-based doctors in private practice whose number one task is to treat and guide their patients and whose primary means of communication is—and will remain—their vernacular language. In view of the high administrative, technical, and social demands placed on today's office-based physicians operating in health care

systems with dwindling resources, expecting them to also master a foreign language well enough to enable them to stay abreast of the latest in their fields is asking for much. Thus, continued medical education (CME) appears to be a classic area where vernacular language should continue to have its place, calling on industry and professional organisations to make as much CME and product information material as possible available in each country's local language(s), much of which will have to be made accessible through translation.

This question ties in nicely with the book review by Françoise Salager-Meyer on page 47, asking whether science should succumb to the preponderance of English as the *Tyrannosaurus rex* of scientific communication or a point should be made of promoting linguistic diversity (cf. the translation section in the previous issue of *TWS*). The 20<sup>th</sup> Review Volume of the *Association Internationale de Linguistique Appliquée* (AILA) entitled 'Linguistic inequalities in scientific communication' takes a comprehensive look at the question of language choice in science from the point of view of what are referred to as 'users of English as an additional language'. Françoise briefly touches on the story of a bilingual Chinese-Hong Kong English doctoral student who, even though English is one of his native tongues, is still faced with difficulties publishing in English.

Therefore, daring as communication in even a single language can be, every additional language compounds the challenge, as also demonstrated by the brief anecdote on medical jargon in the jazz club below and the photos on page 66. The culture gaps are there—as, thankfully, are the many dedicated linguists helping to fill them and building bridges to overcome them.

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## Medical jargon in the jazz club

The other day, I went to a Viennese jazz club with a friend of mine to see the American jazz singer and pianist Diane Schuur—an effervescent voice and a great show. As Diane was conversing with the audience, she mentioned that she was going to be 55 in just a few days. She went on to reminisce how, before her 50<sup>th</sup> birthday, she was keenly looking forward to going to the supermarket to get Centrum Silver® for the first time—one of the sweet little remarks she made that evening. This time, however, only three people in the audience got the joke—and I am positive that the other two also had a healthcare background. Why? First, unlike in the US, Centrum® in Austria is not sold in

supermarkets but at pharmacies only. Second, the formulation for those aged 50 or above is not called Centrum Silver® but Centrum Generation 50+®.

The artist on stage may have wondered why her brief narrative failed to provoke a response. That's how a medical joke in a jazz club can fall straight into a yawning culture gap.

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## The promise of 'KWiC-Web'

by Michael and Ingrid Friedbichler



**How innovative semi-bilingual language guides can help non-Anglophone biomedical professionals master the English language skills they need for international communication.**

### The growing demand for professional communication in the global village

In today's world, medical researchers and health care professionals around the globe are increasingly faced with the need to have not only a passive but also an active command of professional English, which has become a skill essential for their careers [1,2,3,4]. After all, more than 80 per cent of all medical literature is currently published in English [5]. Therefore, it is impossible to keep abreast of new developments in the field without being able to read and understand medical articles written in English [6,7,3]. Yet the passive language skills may be relatively easy to master compared to the active ones, i.e. writing research papers for publication in international journals and presenting papers in English at conferences. In both contexts, the language proficiency required for clear, precise and competent communication must be close to that of a native speaker of English to allow for complex ideas and intricate relationships to be conveyed convincingly [5].

### Today's need for health professionals worldwide to become fully bilingual

Some countries have adopted language policies which stipulate that, from the first years at university, all professional training and discourse should take place in English. This approach, however, is likely to have adverse effects on the national language. Its terminology might be doomed to become outdated, starved or even extinct, which would be a heavy price to pay, not only for large language communities such as the German-, Arab-, or French-speaking nations [1,2,3,8,9]. The only solution to this post-Babylonian dilemma of our progressively globalising world is for health professionals worldwide to start learning the universal language of science and research, which today is undoubtedly English [3,4], while at the same time not neglecting their national languages [1,9]. This means that—in order to keep up to date—scientists need to be fully bilingual in their domain.

### Lacking opportunities and resources for professional English language learning

For many years, non-Anglophone scientists and health pro-

fessionals (non-native-speakers, NNS), particularly the French, were somewhat reluctant when it came to professional communication in English. In the German-speaking countries, the notion that the level of English one has picked up at secondary school is sufficient for professional communication was widespread in the scientific community for a long time. Fortunately, there is now a growing perception of the fallacy of this myth.

Although English for Medical Purposes (EMP) courses are provided at numerous universities in Europe today, most of these courses are offered on a voluntary basis without a well-developed curriculum and standardised achievement levels for students. To our knowledge, medical faculties in France [10], Poland [11] and Serbia [12] are currently the only ones in Europe that offer compulsory EMP courses, while standardised EMP testing is still in the early stages of development (first trial runs are under way in Hungary [13] and at Tokyo Medical University [14]). For the vast majority of NNS health professionals in Europe, learning and mastering the language skills they need for international communication, therefore, remains a private affair and calls for personal initiative, self-study and learning-by-doing.

### Looking for a way forward

Our involvement in EMP teaching, medical translation and editing over the past 30 years has made us progressively aware of these needs, challenges, and deficiencies. It was this background that provided the incentive to develop new materials that are comprehensive and, at the same time, specific enough to help NNS from different medical fields acquire the English language skills they need in their professional setting step by step.

On the basis of our experience in the classroom and countless face-to-face editing sessions with medical writers, we have developed a new tool for professional language learning in medicine, which we have dubbed *KWiC-Web* [6,15]. It is essentially a learner's dictionary in which the medical lexicon is organised in a modular fashion (Figure 1). Its building blocks are based on medical concepts, which makes it possible for users to familiarise themselves with the terms and expressions that are relevant to their fields of specialisation. As each module comprises a limited number of terms, *KWiC-Web* offers all users the opportunity of building and activating their professional English at their own pace and according to their individual needs.

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## &gt;&gt;&gt; The promise of 'KWiC-Web'

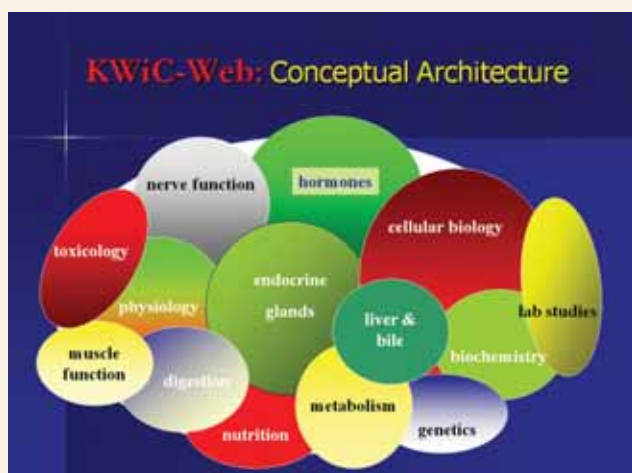


Figure 1 In KWiC-Web the medical lexicon is arranged in a modular fashion. Each of the 142 units covers the terminology of a particular medical field, concept or word field.



Figure 2 One of the unique features of KWiC-Web is the wealth of collocations and phrases given with the keywords, which makes it the first collocational dictionary in the field of medicine.

### The KWiC-Web concept: Language acquisition in a professional context

*KWiC-Web* is an innovative lexical resource which can be used as an EMP language activator on the one hand, and as a bilingual medical dictionary on the other. *KWiC* stands for 'Key Words in Context', while *Web* refers to the interconnected network of topic-related medical glossaries of terms that forms the backbone of the concept.

► **Keywords.** In *KWiC-Web*, medical terminology is presented in 142 modules (Units) in which medical terms, clinical expressions and phrases related in meaning are organised in a fashion comparable to the arrangement of nerve fibres in a plexus. Thus, *KWiC-Web* reflects the way words are stored in the so-called mental lexicon of the human brain. Each module comprises the high-frequency terms of a medical field in a meaningful context of related terms and concepts. The keywords range from health-related general English expressions, e.g. *cough* or *tooth decay*, to highly specific terminology, e.g. *initial stab incision*, an important term in minimally invasive surgery.

► **Contextualisation.** *KWiC-Web* is much more than a mere list of bilingual equivalents. It is a well-known fact that embedding medical terms in appropriate context constitutes the most challenging task for NNS health professionals, medical copy editors and translators. Yet effective language acquisition is impossible if the terms are stripped of their context—just translating isolated words is often less than useful. This is why contextualisation is the name of the game in EMP, medical lexicology and terminography. Therefore, the headwords in *KWiC-Web* are presented not only with their translations but also in the typical context—English explanations, authentic sample sentences as well as commonly used collocations and phrases (Figure 2).

### Corpus-based materials guarantee authenticity

The English keywords, sample sentences and collocations were collected from an electronic corpus of representative medical texts containing more than 20 million words. Great care was taken to make sure that all texts came from authentic and professionally edited sources and were authored by native speakers.

Since *KWiC-Web* is based on computerised text analyses of the frequency, usage and context of specific terms and phrases, the data collected are not only up-to-date but also reflect the way the terms are actually used among professionals.

### Language guide and lexicon in one

*KWiC-Web* combines the functions of a monolingual medical dictionary which provides definitions in English, with those of a domain-specific glossary, a thesaurus and a bilingual medical reference book.

Each unit comprises 200-400 morphologically and/or semantically related terms, phrases and collocations which are cross-referenced with other units. This way a knowledge data bank is created that is easy to remember and facilitates learning because in each unit medical information is networked into a semantic web of terms, phrases and lexical clusters. *KWiC-Web* includes the key terms and phrases encountered every day in clinical settings or when studying the literature on the subject. Users can find familiar household terms and those they have heard before but do not recall any more next to words they have not encountered before, and *KWiC-Web* illustrates how they are interconnected. This helps to create subconscious associations which significantly enhance long-term memory and recall. Working with *KWiC-Web* resembles studying thousands of pages by diagonal reading—but owing to its highly condensed format, *KWiC-Web* is more effective and quicker.

## The promise of 'KWiC-Web'

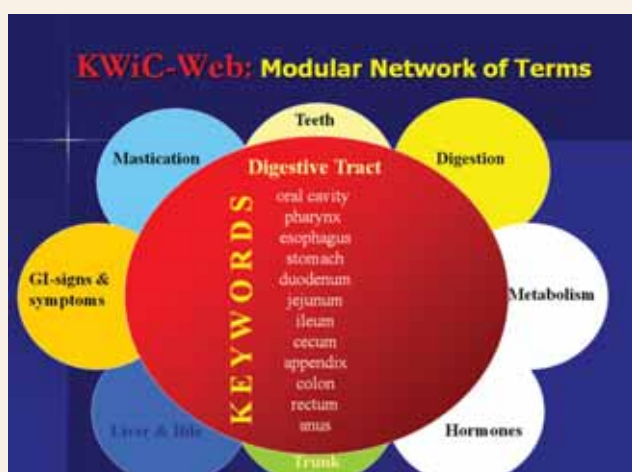


Figure 3 Within the modules, the keywords are arranged in a conceptual fashion (rather than alphabetically). In the module on the digestive tract, for instance, the keyword list follows the path of the food through the alimentary canal. Related modules covering the terminology on digestion, teeth, mastication, etc. are cross-referenced.



Figure 4 The language of medicine is not restricted to medical terms but includes several other registers such as professional jargon (e.g. sed rate), clinical expressions (e.g. swelling) and informal words typically used by laypersons (e.g. womb, blackout). In addition to providing register labels for the keywords, KWiC-Web is also particularly strong in its coverage of the overlap between technical terms and general health-related English.

### The modular structure of KWiC-Web

The way medical terminology in *KWiC-Web* is presented in concise, well-integrated modules (units) very much reflects the structure of medicine with its specialties and subspecialties (Figure 3).

Within the modules, the terms are arranged in word fields which are structured according to medical criteria. Similar to a well-organised textbook, there is a logical order from basic, more general terms and word fields to progressively more specific ones. As in each unit the complexity of the entries increases, users can determine for themselves at which depth they want to study an entry or unit and decide to go on to the next one, if they feel that things are getting too specific. In addition, the arrangement of the terms in semantic concepts (rather than in alphabetical order) results in coupling effects, which help to increase the efficiency of *KWiC-Web* by promoting acquisition of new terms and phrases, above all among learners who are familiar with the terms in their first language (L1) already. The modules have been designed so that the essential concepts of each medical field are covered and gaps and overlaps between related modules are minimised.

In many medical fields, there are standard clinical situations in which specific phrases are used again and again. These are embedded in sentences and translated into the user's L1.

### The KWiC-Web entry structure

The entries are multi-layered and consist of up to 11 components:

- the English headword (= keyword)
- explanations of the headword in easy-to-understand English
- semantically related terms (synonyms, antonyms, hyper- and hyponyms of the keyword)

- morphologically related words connected to the headword and its related terms
- authentic sample sentences from the medical literature
- collocations, phrases and multi-term expressions (MTEs)
- explanatory notes on special usage, multiple meanings, confusable words, etc.
- grammar and linguistic register labels (Figure 4)
- translation equivalents of the keywords and their related terms in the user's L1; words or passages in the context which may be difficult to understand for NNS users or are particularly relevant have been translated as well
- pronunciation aids for headwords and difficult context words

### The lookup function

Similar to a bilingual dictionary, *KWiC-Web* can also be used for looking up words. This way of using the book is particularly valuable for medical writers, editors and translators who are hunting for the appropriate medical expression. All keywords and their translations are accessible via alphabetical registers, which enable the user to search for medical terminology in context. In addition, the medical abbreviations and acronyms provided in the entries are accessible via a separate register.

### Target groups

Owing to the rich language material and the elaborate structure, *KWiC-Web* represents an effective tool for a number of user groups in the health care professions, provided they have an intermediate command of general English (at least B1 level of the Common European Framework for Languages):

- **medical students and postgraduates**
- **physicians and medical researchers** (clinicians & scientists)

&gt;&gt;&gt;



## &gt;&gt;&gt; The promise of 'KWiC-Web'

- **paramedical staff**
- **medical translators**
- **copy editors** working with English texts

Irrespective of whether these users have to familiarise themselves with new medical fields or are searching for specific multi-term expressions, collocations or phrases, *KWiC-Web* provides a wealth of highly condensed linguistic and medical information for which they would otherwise have to start tedious searches online or consult a series of different reference works. Although no dictionary can ever claim to be complete, *KWiC-Web* contains a multitude of phrases, collocations and multi-word expressions which are commonly used in medicine but have not previously been described in other resources.

Even though NNS health professionals are the main target group, these features—as leading colleagues in Britain and the US have confirmed [16,17]—make *KWiC-Web* a treasure trove also for medical linguists, translators and editors who are native speakers of English.

**'e-KWiC'—the quick digital KWiC-Web**

To facilitate and speed up access and searching, the *KWiC-Web* data have also been published in digital form on CD-ROM [18]. A very useful feature of the software is that users can 'turn off' practically any component in the entries, thus hiding data that are not relevant at the moment to enhance the focus on points of interest. Yet, the most powerful instrument of *e-KWiC* is undoubtedly the possibility of searching the full text electronically.

**A future 'Rosetta Stone' for EMP?**

To date *KWiC-Web* materials, including a volume on the language of dentistry [19], are available only for German-speaking users. However, as was already pointed out, the need to master professional English is a global one. Owing to their semi-bilingual structure (i.e. only keywords and selected terms and phrases in the context are translated), the *KWiC-Web* materials can be adapted to the needs of medical professionals in other countries with relatively little effort by simply replacing the original translations with equivalents in other languages. At the same time, the semi-bilingual approach has the advantage of strengthening the user's L1 [1,9]. As we are writing this, a Dutch print edition of *KWiC-Web* is being completed [20] and negotiations about *KWiC-Web* editions with translations in other languages and/or covering selected medical fields are under way. Hence, in the not too distant future, *KWiC-Web* materials will be available to speakers of other languages as well.

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photo: Marlies Kari Neuner

A jolly congress in Wien (Vienna). The exhibition organisers forgot that *Wein* means *wine* in German. (*Messe* means *exhibition*).



photo: Marlies Kari Neuner

This is a photograph of some instructions on a packet of popcorn. The popcorn is made by placing the packet in the microwave oven, and turning the oven on of course. The question is which way do you place the popcorn packet in the oven? If you were Czech, Slovakian, Polish, Hungarian or English (first 4 languages and last language) you would place the packet in the oven with 'This side down'. But if you happen to be German you would read 'This side up' in the fourth line.

## Research journal with sexy cover

The German research institute Max Planck ran into some embarrassment at the end of last year when it published a special China issue of its journal *Max Planck Forschung*. Their idea had been to publish a Chinese poem on the cover but it transpired that the poetic words came from a strip club poster. One translation<sup>1</sup> runs as follows:

"We spend a lot of money to have [girls] to be in house during daytime. Our mama sans, Ga Mei and KK, present you with young and beautiful girls. Stylish and good mannered beauties from the North [of China]. Sexy and hot, young housewives. Flirty and enchanting, available today."

1. From <http://www.smh.com.au/news/home/technology/how-eminant-science-mag-got-hit-for-sex/2008/12/11/1228584998876.html>



The original cover of *Max Planck Forschung* (left) and the replacement cover (right) published after the editorial office became aware that they had published words from a strip club poster.

## Sorry: Change in nuance

Matt Frei, the BBC news correspondent in Washington, has noticed that a lot of people are saying 'sorry' nowadays. He points out that while in the Bush era 'sorry' was for wimps the new era is defined by a manly gusto for apologia. Using headings such as 'Apologiser-in-chief' (Barack Obama) and 'Cancer of insincerity', Frie lists recent apologies and considers the Pope's initiative in the reissuing of indulgences.

Source: [http://news.bbc.co.uk/2/hi/programmes/world\\_news\\_america/7882652.stm](http://news.bbc.co.uk/2/hi/programmes/world_news_america/7882652.stm)

## Parkinson's Law of Medical Research

Successful research attracts the bigger grant which makes further research impossible (*The New Scientist* 25<sup>th</sup> January 1962)

Professor Parkinson explained, "In accordance with this law, we mostly end up as administrators. We should have ended as administrators, in any event, remember, had we never done any research."

# Regulatory writing

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