How to write an ICS/IUGA conference abstract

Rufus Cartwright · Kari A. O. Tikkinen · Mark E. Vierhout · Heinz Koelbl

Abstract

Introduction This article aims to condense the lectures and discussions from workshops on good reporting at IUGA Como 2009 and ICS San Francisco 2009, providing practical advice for the novice researcher summarising their data for the first time.

Conclusions Drafting an abstract can be a time-consuming process. Formal guidance, such as CONSORT and STROBE, exists for the kinds of information that should be included regarding almost all designs of clinical trials. Follow the abstract submission rules closely to avoid outright rejection. Plan to highlight the novelty, scientific merit and clinical impact of the work. Try not to overstate the importance of the findings. Do not forget to publish the work in a peer-reviewed journal.

Keywords Abstracting and indexing · Clinical trials · Congresses · Medical societies · Peer review

Introduction

Presentations at international scientific conferences such as ICS and IUGA are the most important route for early dissemination and discussion of research findings. Indeed for many studies that never reach full text publication [1], and in many regions where access to health care publications is limited, the conference abstract may be the only easily available record of the research. As if preparing a succinct and accurate summary of one’s research is not challenging enough, there is also a certain art to writing an abstract that will appeal to conference scientific committees.

Over the last decade getting work accepted for oral presentation at either ICS or IUGA became increasingly difficult (Fig. 1). In 2009 the ICS meeting in San Francisco received 1,003 abstract submissions and was able to accept only 284 for oral presentation. The IUGA meeting was usually more forgiving, with the 2009 Como meeting receiving 477 submissions and accepting 200 oral presentations.

Aims

In 2009 we held workshops at both meetings on good reporting of research findings. Speakers included chairs and members of ICS and IUGA scientific committees, specialty journal editors and expert methodologists. With the April 1 deadline for submissions to the joint 2010 ICS/IUGA
meeting in Toronto looming, this article aims to condense the lectures and discussions from those workshops into practical advice for the novice researcher facing the daunting task of summarising their data for the first time.

When to write an abstract

It is an important principle that abstracts presented at ICS or IUGA should not have been previously presented internationally, nor should the abstracts have been indexed in a published journal. Every year there is some overlap of presentations between the two meetings, as well as with other urological or gynaecological meetings, which wastes the precious resource of podium time. It is a more strictly enforced rule that studies that have been published in full, even as an e-publication, should not be presented. Every year some abstracts slip through, despite prior publication [2, 3]. The reverse situation occurs when researchers choose to submit an abstract before conducting any analysis, or based on analysis of interim results. Each abstract should contain original data, not merely a description of methodology. Reports of interim analyses may be justified on safety grounds, but should ideally be led by an independent data monitoring committee. Particularly for randomised trials, conducting interim efficacy analyses before completion of recruitment jeopardises the power calculation of the study and compromises the equipoise of the researchers [4]. Even for observational studies, waiting for full recruitment and complete follow-up is usually associated with a more powerful message.

Every year, very large numbers of abstracts are submitted in the final hours before abstract submission closes. The writing of a conference abstract is usually the first chance for multiple authors to synthesise and reflect on complex findings. Sufficient time should therefore be allotted for multiple revisions, with a chance for all listed authors to approve the final draft. Working right up to the deadline may lead to gaps in the analysis and unnecessary approximations. Although we have ourselves each been guilty of last minute submissions, we would recommend leaving as much time as possible for abstract preparation.

Find appropriate reporting guidance

The classic scientific format of Introduction, Methods, Results, and Discussion (IMRaD) is adapted for abstracts at both meetings, with extra stress placed on stating a clear objective or hypothesis for the study. Within the IMRaD structure more detailed guidance is available for the items that ought to be included in the full report of a trial. The EQUATOR Network collects and promotes such evidence-based guidance for research reporting. The best known of these recommendations is the CONSORT guideline [5]. Implementation of CONSORT has been shown to effectively improve reporting of randomised controlled trials [6], and it has been formally adopted for reporting of randomised trials at the ICS/IUGA meeting [7]. A core set of items suitable for inclusion in brief abstracts is also available [8] and should be considered as a minimum requirement. Most abstracts submitted to ICS and IUGA are observational cohort, case control or cross-sectional studies. The STROBE statement gives specific guidance for reporting research from each of these designs [9]. Other guidance relevant to the continence field includes PRISMA for systematic reviews and meta-analyses [10] and STARD for diagnostic accuracy studies [11]. The EQUATOR Network has collected many other useful examples [12]. Together these guidelines provide a framework for reporting of clinical research of most designs. Although, with the exception of the CONSORT for abstracts, these guidelines are intended for whole manuscripts, ICS and IUGA abstracts are relatively long. This should allow authors to fulfil most requirements. Failing to report these key items prevents full evaluation of the work, and therefore limits the impact of the study.

Avoid basic errors

Both societies provide detailed abstract submission rules [7]. It is strongly advised to read these in detail before starting the process of writing. Very few abstracts are rejected outright, unless the authors failed to follow the abstract submission rules. Abstracts must be in the correct font, at the correct size, must not be too short or too long and must follow the recommended structure. Importantly, and seemingly obviously, abstracts for the ICS/IUGA meeting should be related to either continence or urogynaecology.
The scientific committee insists that abstracts are strictly anonymous, which enhances the perception of fairness, although it has an uncertain effect on the reliability of the scoring system [13]. Every year abstracts are rejected because authors disclose their names or their institution within the text of the abstract. Describing the country or region and the type of healthcare organisation should provide sufficient information about the setting. Although it is acceptable for abstracts to include self-citations, the cited paper should not be referred to in the first person possessive (e.g., ‘our previous work showed…’) in order to maintain anonymity.

Drafting a clearly worded, readable abstract is difficult even for native English speakers. While spelling errors and solecisms will not rule out acceptance of high quality science, there is evidence that reviewers are biased in favour of well-written abstracts. Non-native English speakers should therefore enlist native English speakers or better still, professional medical writers to review their drafts.

### Appeal to the scientific committee

Abstracts are judged on three criteria: novelty, scientific merit and clinical impact, which are allotted equal importance. Authors should bear these categories in mind when drafting each section of the abstract. The process of scoring abstracts is very intense for members of the scientific committee. Each referee will be allocated approximately 300 abstracts to evaluate, with each abstract scored by multiple referees to increase reliability. This amounts to hundreds of thousands of words to be read over a 2-week period. Since most committee members also have full-time

| Table 1 | Summary of suggestions for ICS/IUGA abstracts of clinical trials |
|---------|------------------------------------------------------------------|
| **Abstract Section** | **Items to include** |
| Title | Identify the study design (e.g., randomised trial, prospective/retrospective cohort, case control, cross-sectional study) |
| Hypothesis / aims of study | Explain the clinical or scientific uncertainties addressed |
| Study design, materials and methods | Give the rationale for the design |
| | Give a clear statement of the main objective |
| | Detail major eligibility criteria for participants*
| | Indicate the setting for the study (without breaching anonymity) |
| | Give the periods of recruitment and follow-up |
| | Briefly explain the intervention or exposure*
| | Briefly explain how and when outcomes were assessed |
| | Give details of efforts to address potential sources of bias (might include details of randomisation, blinding, validation of questionnaires or data sources, training of assessors, follow-up of non-responders, adjustment for confounding) |
| | Explain the statistical analyses used, and how the sample size was determined |
| Results | Give the numbers of participants approached, the number recruited, and the number followed up at each timepoint*
| | Specify if recruitment is ongoing |
| | Briefly give the major demographic characteristics of participants*
| | Give a result for each outcome, with a measure of precision (standard deviation, 95% confidence intervals), and indicate the number of participants with missing data*
| | Report any harms or adverse events*
| Interpretation of results | Summarise the main findings |
| | Realistically assess the importance of the findings, taking into account the limitations of the study, including sources of potential bias or imprecision |
| Concluding message | Give explicit examples of the clinical or translational relevance |
| | Explain how the study addressed the aim *

*For each group, where groups are compared*
jobs as clinicians or scientists, the time available to score each abstract is extremely limited.

The title is the first, and perhaps main chance to grab the attention of the tired overworked referees. Formal guidance, such as STROBE, recommends that titles should indicate the study design (e.g., ‘A prospective cohort study of snake oil for stress incontinence’). Popular alternatives include phrasing the title as a question in order to highlight the novelty and aims (e.g., ‘Does snake oil cure stress incontinence?’); giving a conclusive statement summarising the main finding (e.g., ‘Snake oil is ineffective for stress incontinence’); or some combination of these approaches.

After the title, readers and reviewers tend to focus next on the aims and conclusions. It is important that the title fits with the aim and that the conclusion directly addresses the aim. The reviewers are unlikely to be familiar with the entire world literature on your topic, so the background is a chance to briefly explain the clinical or scientific uncertainties addressed and the rationale for the design. It is helpful to be specific about the main hypothesis.

When there are multiple hypotheses and multiple outcome measures it may be tempting to break the study into two or more abstracts, so called salami slicing [14]. This is explicitly forbidden in the abstract rules. The objective should be to present the single strongest abstract, with the best chance of being rewarded with a podium presentation or discussed poster. If one study was conducted, with one sample, then there should be just one abstract reported.

The scientific merit of an abstract is in part determined by the study design and in part by the clarity of the results and methods sections. The worst reported randomised trial will still score higher than the best case report. The formal reporting guidance (CONSORT, STROBE, STARD) appropriate to each study design will help decide what information is necessary in the limited space available. A well-designed table or figure will often be the clearest way to present the actual data. It is important that a table should neither contain too many data, making it unreadable, nor should it repeat the text.

The conclusion is the final chance to demonstrate the clinical impact of the work. Authors should therefore give explicit examples of the clinical or translational relevance. Many abstracts overstate the importance of their findings, making claims that would not withstand full peer review [2]. It is an egregious error to claim that an intervention tested is ‘safe and effective’ if it is based on one centre, one surgeon or only a small case series.

Table 1 summarises the types of information that might be included in each section of an ICS/FIGA abstract for a clinical trial, adapted from the CONSORT, and STROBE statements.

Conclusions

Providing abstracts follow the submission rules, they are unlikely to be rejected outright. Formal guidance exists for almost all study designs and should help identify the kinds of information that need to be included in each section of the abstract. Despite the tips and suggestions made here, podium time is at a premium, and there are no guarantees of acceptance for oral presentation.

Getting an abstract accepted is only the first step in disseminating research findings. It is even more important to submit for publication. Getting the paper ready for publication can be good preparation for fielding questions from the conference floor. Conversely questions from the floor may be a good indicator of the kinds of queries that will be raised in the peer review process. Great abstracts can still make poor presentations, and there is a plethora of good advice for preparing slides [15–17].

Acknowledgements The authors would like to thank the speakers and participants at the workshops that prompted this article.

Conflicts of interest None.

Funding None.

Open Access This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium, provided the original author(s) and source are credited.

References

1. Scherer R, Langenberg P, von Elm E (2007) Full publication of results initially presented in abstracts. Cochrane Database Syst Rev: MR000005
2. Cartwright R, Khoo AK, Cardozo L (2007) Publish or be damned? The fate of abstracts presented at the International Continence Society Meeting 2003. Neurourol Urodyn 26:154–157
3. Cartwright R, Khoo C, Cardozo L (2007) Full publication of abstracts presented at the International Urogynecological Association Meeting 2003. Int Urogynecol J Pelvic Floor Dysfunct 18:S86
4. Tharmanathan P, Calvert M, Hampton J, Freemantle N (2008) The use of interim data and Data Monitoring Committee recommendations in randomized controlled trial reports: frequency, implications and potential sources of bias. BMC Med Res Methodol 8:12
5. Moher D, Schulz KE, Altman D, CONSORT Group (Consolidated Standards of Reporting Trials) (2001) The CONSORT statement: revised recommendations for improving the quality of reports of parallel-group randomized trials. JAMA 285:1987–1991
6. Moher D, Jones A, Lepage L, CONSORT Group (Consolidated Standards for Reporting of Trials) (2001) Use of the CONSORT statement and quality of reports of randomized trials: a comparative before-and-after evaluation. JAMA 285:1992–1995
7. https://www.icsoffice.org/ASPNET_Membership/Membership/Abstracts/AbstractsCentre.aspx?EventID=105 (Accessed 07/01/10)
8. Hopewell S, Clarke M, Moher D, Wager E, Middleton P, Altman DG et al (2008) CONSORT for reporting randomized controlled trials in journal and conference abstracts: explanation and elaboration. PLoS Med 5:e20
9. Vandenbroucke JP, von Elm E, Altman DG, Gøtzsche PC, Mulrow CD, Pocock SJ et al (2007) Strengthening the Reporting of Observational Studies in Epidemiology (STROBE): explanation and elaboration. Epidemiology 18:805–835
10. Liberati A, Altman DG, Tetzlaff J,Mulrow C, Gøtzsche PC, Ioannidis JP et al (2009) The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate healthcare interventions: explanation and elaboration. BMJ 339: b2700
11. Bossuyt PM, Reitsma JB, Bruns DE, Gatsonis CA, Glasziou PP, Irwig LM et al (2003) The STARD statement for reporting studies of diagnostic accuracy: explanation and elaboration. Ann Intern Med 138:W1–W12
12. http://www.equator-network.org/ (Accessed 07/01/10)
13. Jefferson T, Alderson P, Wager E, Davidoff F (2002) Effects of editorial peer review: a systematic review. JAMA 287:2784–2786
14. Mojon-Azzi SM, Mojon DS (2004) Scientific misconduct: from salami slicing to data fabrication. Ophthalmologica 218:1–3
15. Harden RM (2008) Death by PowerPoint—the need for a 'fidget index'. Med Teach 30:833–835
16. Church J, Balliet J (2005) The quality of podium presentations at the American society of colon and rectal surgeons: does a decade make a difference? Dis Colon Rectum 48:1569–1572
17. Tufte ER (2006) The cognitive style of PowerPoint: pitching out corrupts within. Graphics Press, Connecticut