

EDITORIAL

How to write an abstract for an intensive care conference

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Scientific conferences are important events for facilitating networking and sharing of ideas, new research results and best practice [1]. Consequently, before any intensive care conference, there is a call for abstracts, usually 6-9 months prior to the conference. An abstract is simply a summary of the work you intend to present at the conference for review by the conference scientific committee to score and decide whether to accept your work and to decide whether it is suitable for an oral presentation (usually reserved for the best abstracts), an oral poster or a hanging/free poster. These categories may vary for each conference, but there is always a scoring and grading process of the submitted abstracts.

So why submit an abstract for a conference? Most clinicians or researchers submit abstracts to conferences to showcase their work, get feedback from peers and share the results of their research [1]. For many, having an abstract accepted at a conference is also the only way they might be funded by their organisation to attend, so it is crucial that you maximise your chances of your abstract being accepted. For some conferences the abstracts are also published (in the form they are accepted) in a supplementary issue of the society journal with your name; for instance, last year, *Nursing in Critical Care* published a supplementary issue with the abstracts of papers and posters presented at the 36th annual conference of the British Association of Critical Care Nurses'. Having an abstract accepted and presenting at a conference is also an important addition to your curriculum vitae, professional portfolio and personal development.

So how do you start?

Before beginning to write an abstract you will need to have a project or research study completed or near completion and have some results or findings (at least preliminary ones) to share. There is no point in continuing if you don't. Stating that 'results will follow' will normally result in an immediate rejection of the abstract. Secondly, ensure that you are submitting an abstract to a relevant conference. For instance, intensive care conferences require a paper on a topic related to intensive care, not a generic topic. In their call for abstracts, several conferences also have a general theme, multiple themes or an overarching theme with several subthemes. Make sure that your topic or focus is at least somewhat related to the theme/s of the conference of interest. Finally, check that the call for abstracts caters for the type of presentation you would like to present; for instance, while virtually all conferences accept abstracts of research projects and quality initiatives, not all conferences accept literature reviews and case studies.

When preparing to write the abstract, the first thing to check is the word limit and other specifications, as every event (and corresponding call for abstracts) has its own requirements. An abstract word limit is usually around 250 words, so you must consider and use your word limit very carefully. At this point think about what information you need to convey. The most important aspect of an abstract are your results as this shows you have some 'real' data or findings to share. Most conferences require abstracts to be structured and formatted in a very specific way using headings such as: background, aim or objective, method, results and conclusions. Usually, a conference abstract template is provided and must be adhered to.

Secondly, think about the title of the abstract. You are usually limited to about 10 words so consider these carefully as this will 'sell' your abstract.

Within the strict word limit and using the specified headings, it is recommended to use no more than one short sentence about the background (because the abstract should be targeted already to a particular conference audience). An example of this would be *Accurate pain assessment is reported to be complex in sedated intubated children.*

Next, the aim of the project or research should also be one short sentence, and written in an active tense, for example: *To explore nurses' decision-making around pain assessment in intubated and sedated children.* Every project, whether research, service evaluation, quality improvement (QI), practice development, literature review or audit should have a clear aim, and this must be stated.

The method/s is the next required section of an abstract. This should be succinct but clearly describe what design and/or method/s you used in the project, for instance a systematic literature review, a cross sectional survey, a qualitative research design such as phenomenology or grounded theory (with their associated data collection methods, e.g. interviews or focus groups), a randomised controlled trial, a case control study, a prospective or retrospective cohort study. For service evaluation, audit or Quality Improvement (QI) projects, abstracts should still state the method used. For example: *A QI project involving the PDSA (plan-do-study-act) cycle was used to evaluate compliance with pain assessment; or a before and after design was used to evaluate the implementation of a new ICU follow up clinic on patient satisfaction.* If any relevant reporting guidelines have been used, you should refer to these guidelines in your methods section of the abstract. For example, if your abstract refers to a systematic review, and the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analyses) guidelines [6] were used, this should be clearly stated.

As mentioned previously, the most important section of an abstract is your results or findings. In an abstract, reviewers need to be able to see that you actually have some results/findings to share. Some

conferences allow you to upload one graph, table or figure as part of an abstract; if allowed, this is highly recommended as it can save you some words and show you have results. In terms of presenting your findings, it is important to be specific and not vague. If, for example, you have undertaken a survey, the abstract should state who the participants were (e.g. patients or staff), how many people participated, and your response rate. If you reviewed health records, state how many patients were included and report relevant descriptive variables, such as age, gender and/or weight. For a literature/systematic review, specify how many papers were included in the review and the key themes emerging from your review. For qualitative research, indicate the key themes, concepts or generated theory emerging from the data. For quantitative papers, the key statistics should be presented in the abstract. Where appropriate, basic data should either be presented as mean and standard deviation (SD) if normally distributed, or as median and inter-quartile range (IQR) if non-normally distributed (e.g. duration of ventilation is usually heavily skewed). These simple descriptive statistics can be processed without using highly specialised software. One further important consideration when writing your results section of an abstract is to be objective when presenting results. For example, you should present the key statistical findings of a quantitative paper, but you should not use subjective or descriptive terms such as “interestingly”. In other words, the results section should not provide your opinion or perspective of the results. Below are some examples of well written results sections of conference abstracts.

Example of a good quantitative study results section

Results: 90 VA ECMO runs with a median ECLS run of 145 hours (IQR 85 – 227 hours). Median age 2.5 months (IQR 0.5 – 13) and weight 3.98 kg (IQR 3.1 – 7.9), 73% required ECMO for cardiac reasons (33% were ECPR). 66% children were fed enterally on ECLS, 40% received PN (plus supplemented EN) and 24% were not fed. The median time to initiation of EN was 23 hours (IQR 12.7 – 44 hours). Overall incidence of gastrointestinal (GI) complications was 17.5% (feed intolerance 4.5%, NEC stage 1a-1b 12.1% and NEC ≥stage 2a 1.5%) Infants who received only human milk were less likely to develop NEC (any stage) 16% vs 21.4% ($p = <0.001$). Children who were not fed had a similar rate of GI complications (21.7%).

Example of a good literature review results section

Following systematic searches, 18 cohort studies were included, with data from 1,191,178 patients from 10 countries. There was variability in the definition of “out-of-hours”, commencing between 16:00 and 22:00 and finishing between 05:59 and 09:00. Patients discharged out-of-hours had higher in-hospital mortality, relative risk (95% CI) 1.39 (1.24, 1.57) $p < 0.0001$ and readmission rates, relative risk (95% CI) 1.30 (1.19, 1.42), $p < 0.001$ than patients discharged in-hours. Heterogeneity was high (I^2 90.1% for mortality and 90.2% for readmission).

Example of a good qualitative study results section

The outcomes which were perceived to be achieved to a very large extent by the greatest majority of participants were related to “improvement in self-empowerment and esteem” and “motivation from participating in future education or training”. Thematic analysis of the focus group data revealed five

themes: jobs and employability; exposure to culturally diverse healthcare systems; personal growth; context-sensitivity of nursing care delivery; language and citizenship.

Example of a good QI project results section

Results: A total of 520 emergency events were reviewed over the 9-year period. One hundred and thirty-two (n = 132; 25%) were cardiac arrest events, with the majority occurring within the PCCU setting. Three hundred and twelve (60%) of the events were in children who had been inpatient for more than 48 hours. FtR trend declined over the study period from 23.6% in 2011 when the project commenced to 2.5% or less over the following 8 years.

The final section of an abstract is your conclusion/s. This should also be brief (one to two sentences) and succinctly state the main implications of your findings for practice. Avoid simply restating exactly a point from your results section. An example of this might be: *This study shows that nurses' decision-making around pain assessment in intubated patients is complex and is significantly associated with the nurses' ICU experience and specialist ICU education.*

Other relevant points for consideration

Other important writing points for an abstract include avoiding writing in first person, unless this is a reflective piece of work, which is only rarely considered. Additionally, avoid writing your abstract like a story; use relevant subheadings to structure your abstract, unless this is expressly disallowed. Abbreviations can be used to save words in the abstract (but make sure they are written in full the first time they are used). Ensure confidentiality of the workplace and the participants. Do not state the name of the hospital or institution in an abstract; instead, indicate the setting, for example, *a large ICU in the Northwest of England* or *a coronary intensive care unit in Scotland*. Most importantly, ensure you have thoroughly checked the spelling, grammar and syntax; failure to do so simply indicates rushed and sloppy work. If you are not an English native speaker it is also advisable to have your abstract checked by an English native speaker.

A further important consideration is to ensure the abstract is presentable, in an easy-to-read format. Unless the abstract submission involves filling in an online form with pre-designed sections, you may consider leaving a space between each section, and using bold text for section headings. This will make it easier for the reviewer to read your abstract. Remember, the reviewers have many abstracts to read, so you should try to make yours as easy to read as possible. You should also ensure that the page setting, font type and size are consistent and adhere to the submission guidelines throughout the abstract. Finally, some calls for abstracts specifically request the inclusion of references, whereas others do not permit them, so again check the guidance. You should absolutely avoid giving the impression that you submitted an abstract without carefully reading the guidelines accompanying the call for papers. Finally, the choice of words should make it clear that the abstract fits within the theme, or one of the subthemes, of the conference, if the call for abstracts stipulates this.

How are conference abstracts evaluated?

All conference abstracts are reviewed and evaluated in some way, often using predetermined criteria, such as the quality of the science/method used, the significance of the topic, its importance for clinical practice, the relevance to the conference theme and the 'novelty' or originality of the abstract.

In our experience of reviewing conference abstracts (for many different intensive care conferences) over the past decade, the main reasons for abstracts being rejected are: having no clear aim/s making it questionable why the project was done; failure to clearly describe the design / methods; not presenting any results or saying 'results will follow'; very poor English writing which makes it difficult to understand; not using the structured headings or not adhering to the requested format/style; written as a story rather than as a scientific abstract; not addressing the conference theme/s; a lack of novelty and no indication of potential implications for practice.

Despite your best efforts, it is still possible that your abstract will be rejected. Rejection does not mean failure, and despite the discouragement that this may bring, having an abstract rejected should constitute the start of a new submission. Remember that there are myriad possible reasons for rejection, one of which may be that the theme of the conference may not have been the most fitting one for your work. Conversely, if your abstract is accepted you should strongly consider writing a manuscript for submission to a professional or academic journal. Our editorial on how to convert a conference abstract to a journal manuscript [8] should be very helpful in this regard.

Conclusion

In summary, writing an abstract for a conference is a professional skill that improves with experience, but using this guide should improve your chances of your abstract being accepted and ensure that you present your work in the most robust manner. It is important to remember that, although brief, every abstract should be considered as a 'mini-paper' and, therefore, readable and understandable as a standalone piece [3]. For many conferences, these submitted abstracts will be published in a society journal (with the author names), so it is crucial they are well written, accurate and not rushed the night before an abstract deadline. Authors of accepted papers should strongly consider turning their conference paper into a full manuscript for submission to an academic journal.

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