



The growth and evolution of the MASCC-ISOO Annual Conference from 2014 to 2019

Julia Lou¹ · Victoria Rico¹ · Liying Zhang² · Carlo De Angelis^{3,4} · Edward Chow³ · Fiona Lim⁵

Received: 7 August 2022 / Accepted: 8 December 2022 / Published online: 21 December 2022
© The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature 2022

Introduction

The theoretical ideas behind supportive care in oncology have evolved along with changes in technology, from focusing on anti-cancer therapies to considering comorbidities, toxicities, and quality of life. The introduction of new therapies, such as oral agents and targeted therapies, gave physicians new ways of providing supportive care [1, 2]. Founded in 1990, the Multinational Association of Supportive Care in Cancer (MASCC) was established to further advance supportive care in cancer through improving management of adverse effects of anti-cancer therapies and treatment of such adverse events [3]. In 1998, MASCC joined hands with the International Society of Oral Oncology (ISOO), an organization which connects oral health and oncology to address issues which arise from cancer treatments [4].

This manuscript aims to examine the changes in MASCC-ISOO meetings over a 5-year period by comparing the MASCC-ISOO abstracts published in 2014 versus those published in 2019 (retrieved from the official website <https://www.mascc.org>). These 2 years were chosen for the comparison because the MASCC conferences in these years both occurred in the USA with no impact of attendance due to travel, hence allows an easier and fairer comparison. Two authors reviewed the abstracts and validated the findings for comparing the following clinical items: first author area (country) of residence, retrospective vs. prospective study,

experimental vs. observational study, review type (systematic or non-systematic), cross-sectional study (yes or no), quantitative vs. qualitative study, and single or multiple cancer treatment. For the purposes of this commentary, “single” cancer treatment refers to patients who receive one type of anti-cancer treatment, such as chemotherapy alone. “Multiple” cancer treatment was used when the abstract mentioned that patients received more than one type of anti-cancer treatment, such as chemotherapy and surgery. The abstracts are categorized according to the abstract categories as defined by MASCC. Chi-square or Fisher exact test was used as appropriate for comparisons, and two-sided p -value < 0.05 was considered statistically significant.

Findings

Overall, 550 MASCC abstracts that were published in 2014 and 729 in 2019 were included in our analysis.

We found a difference in the most published abstract categories over this 5-year period. For instance, palliative care (12%), psycho-oncology (11%), and nausea-vomiting (8%) were the most common abstract categories in 2014, while rehabilitation, survivorship and quality of life (14%), cancer symptoms (10%), and palliative care (9%) were the most published abstract categories in 2019. With the population growing and aging, many symptom assessment tools are available to help patients with advanced cancer with the management of multiple symptoms. Along with the increased recognition on the effectiveness and importance of early integration of palliative care into routine oncology care, advances in cancer treatment and survival may have accounted for the high percentages of abstracts published about palliative care due to the likely increased focus in these areas [5–7] accounting for rehabilitation, survivorship and quality of life being a highly published abstract topic in 2019. We also found that in 2014 and 2019, a large number of abstracts were submitted to the MASCC meeting from

✉ Fiona Lim
lmy084@ha.org.hk

¹ McMaster University, Hamilton, ON, Canada

² MacroStat Inc., Toronto, ON, Canada

³ Sunnybrook Health Sciences Centre, Toronto, ON, Canada

⁴ Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, ON, Canada

⁵ Department of Oncology, Princess Margaret Hospital, Lai Chi Kok, Kowloon, Hong Kong, China

North America and Europe. A decreased percentage of submitted abstracts from these parts of the world were observed (in total, decreased from 66 to 55%), while rates of abstracts submitted from Asia, Australia, and Africa increased significantly (in total from 29 to 42%), suggesting that MASCC is expanding its international reach.

We found a significant increase in retrospective (14.6 to 21.8%) and quantitative studies (76.9 to 83.8%) published from 2014 to 2019, and the percentage of observational studies or cross-sectional studies remained relatively stable. There was also a significant increase in the number of systematic review abstracts published (6.0 to 8.4%).

We also observed that there was a significant decrease in abstracts focusing on patients who received a single treatment type from 2014 and 2019, while an increase in patients with multiple or mixed treatment types. Technological advancements made in recent years have encouraged patients and clinicians to consider multiple treatment options (including combination therapy) for a greater effectiveness which may explain this trend towards mixed treatments observed in the published abstracts [8]. A potential limitation of this study comes from assigning the first author area of residence. We assigned the country of origin based on the first author's affiliation, which may not accurately reflect where the research was conducted, particularly if the study was an international multi-center study. As well, since the abstract categories for MASCC changed between 2014 and 2019, the abstract category comparisons presented in our results may be subject to some overlap, which could impact the results. For instance, survivorship is presented as its own category in 2014 but is included in the rehabilitation, survivorship and quality of life category in 2019. Further studies are needed from MASCC-ISOO meetings from other years to consolidate our findings. Additional studies could compare our results to conferences held in different countries, as well as looking at how the COVID-19 pandemic has impacted the exchange of knowledge through conferences, the focus of abstracts, and the origin of submission due to the virtual nature of the conferences.

Our study demonstrates that more abstracts were published in 2019, and among these, the percentage of systematic reviews, retrospective and quantitative studies increased significantly from 2014 to 2019. There was a significant increase in the abstracts with multiple treatment types, and more abstracts are being submitted from Asia, Australia, and Africa than in 2014. This study shows how MASCC has evolved to become a more internationally diverse conference.

Acknowledgements The abstract was presented in 2021 MASCC.

Author contribution All the authors contributed to the study conception and design. Material preparation and data collection were performed by Julia Lou and Victoria Rico. Statistical analysis and figure synthesis were performed by Liying Zhang. The first draft of the commentary was written by Julia Lou and all the authors commented and revised various drafts of the commentary. All the authors read and approved the final commentary.

Data availability The data supporting the findings of the study are not publicly available due to big dataset and are available from the corresponding author upon reasonable request.

Declarations

Ethics approval Ethics approval was not required for this study.

Consent to participate Consent to participate was not applicable.

Competing interests The authors declare no competing interests.

References

- Olver I, Keefe D, Herrstedt J, Warr D, Roila F, Ripamonti CI (2020) Supportive care in cancer - a MASCC perspective. *Support Care Cancer* 28:3467–3475. <https://doi.org/10.1007/s00520-020-05447-4>
- Haase KR, Drury A, Puts M (2020) Supportive care and eHealth. *Clin J Oncol Nurs* 24:28–41. <https://doi.org/10.1188/20.CJON.S1.32-41>
- Rittenberg CN, Johnson JL, Kuncio GM (2010) An oral history of MASCC, its origin and development from MASCC's beginnings to 2009. *Support Care Cancer* 18:775–784. <https://doi.org/10.1007/s00520-010-0830-0>
- Fox PC, Peterson DE (1998) Alliance: Multinational Association of Supportive Care in Cancer and International Society for Oral Oncology. *Support Care Cancer* 6:490–491. <https://doi.org/10.1007/s005200050202>
- Henson LA, Maddocks M, Evans C, Davidson M, Hicks S, Higginson IR (2020) Palliative care and the management of common distressing symptoms in advanced cancer: pain, breathlessness, nausea and vomiting, and fatigue. *J Clin Oncol* 38:905–914. <https://doi.org/10.1200/JCO.19.00470>
- Ferrell BR, Temel JS, Temin S, Alesi ER, Balboni TA, Basch EM, Finn JI, Paice JA, Peppercorn JM, Phillips T, Stovall EL, Zimmermann C, Smith TJ (2017) Integration of palliative care into standard oncology care: American Society of Clinical Oncology Clinical Practice Guideline Update. *J Clin Oncol* 35:96–112. <https://doi.org/10.1200/JCO.2016.70.1474>
- Urruticoechea A, Alemany R, Balart J, Villanueva A, Vinals F, Capella G (2010) Recent advances in cancer therapy: an overview. *Curr Pharm Des* 16:3–10. <https://doi.org/10.2174/138161210789941847>
- Moulder S, Hortobagyi GN (2008) Advances in the treatment of breast cancer. *Clin Pharm Therap* 83:26–36. <https://doi.org/10.1038/sj.cpt.6100449>

Publisher's note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.