

## Editorial

# ASTRO's Advances in Radiation Oncology's Top Downloaded Articles of 2023



Each year, we publish the 20 most frequently downloaded articles from *Advances in Radiation Oncology* from the prior calendar year (Table 1).<sup>1-20</sup> This information provides us with valuable insights into the types of topics and articles that hold the greatest immediate interest to our readership. In 2023, we were pleased to see a diversity of topics and article types represented among

this selection. Over a dozen original scientific studies were in this list, reflecting a breadth of cancer types being studied including breast and central nervous system cancers; gastrointestinal, genitourinary, and gynecologic cancers; as well as pediatric tumors and articles on palliative radiation. Magnetic resonance imaging, positron emission tomography-guided radiation therapy and particle therapy.

**Table 1** Top 20 downloaded articles in 2023

DOI address	Title	Authors
<a href="https://doi.org/10.1016/j.adro.2023.101212">10.1016/j.adro.2023.101212</a>	Positron Emission Tomography (PET)/Computed Tomography (CT) Imaging in Radiation Therapy Treatment Planning: A Review of PET Imaging Tracers and Methods to Incorporate PET/CT	Trotter, J.; Pantel, A.; Teo, B.; Escoria, F.; Li, T.; Pryma, D.; Taunk, N.
<a href="https://doi.org/10.1016/j.adro.2022.101091">10.1016/j.adro.2022.101091</a>	Simulation-Free Radiation Therapy: An Emerging Form of Treatment Planning to Expedite Plan Generation for Patients Receiving Palliative Radiation Therapy	Schiff, J.; Zhao, T.; Huang, Y.; Sun, B.; Hugo, G.; Spraker, M.; Abraham, C.
<a href="https://doi.org/10.1016/j.adro.2022.101119">10.1016/j.adro.2022.101119</a>	Olfactory Sensations During Radiation Sessions: A Review	Sasai, K.
<a href="https://doi.org/10.1016/j.adro.2022.101084">10.1016/j.adro.2022.101084</a>	Causes of Death Among Patients With Initially Inoperable Pancreas Cancer After Induction Chemotherapy and Ablative 5-fraction Stereotactic Magnetic Resonance Image Guided Adaptive Radiation Therapy	Chuong, M.; Herrera, R.; Ucar, A.; Aparo, S.; De Zarraga, F.; Asbun, H.; Jimenez, R.; Asbun, D.; Narayanan, G.; Joseph, S.; Koteka, R.; Hall, M.; Mittauer, K.; Alvarez, D.; McCulloch, J.; Romaguera, T.; Gutierrez, A.; Kaiser, A.
<a href="https://doi.org/10.1016/j.adro.2022.101171">10.1016/j.adro.2022.101171</a>	Vestibulocochlear Delineation for Vestibular Schwannoma Treated With Radiation Therapy	Restini, F.; Brito, L.; Yoshimoto, F.; Pereira, A.; Neto, D.; Gomes, V.; Nascimento, B.; Mancini, A.; Alves, T.; Starling, M.; Chaves, G.; Passos, U.; Marta, G.; Hanna, S.
<a href="https://doi.org/10.1016/j.adro.2022.101042">10.1016/j.adro.2022.101042</a>	Magnetic Resonance Imaging-Based Delineation of Organs at Risk in the Head and Neck Region	Paczona, V.; Capala, M.; Deák-Karancsi, B.; Borzási, E.; Együd, Z.; Végváry, Z.; Kelemen, G.; Kószó, R.; Ruskó, L.; Ferenczi, L.; Verduijn, G.; Petit, S.; Oláh, J.; Cserháti, A.; Wiesinger, F.; Hideghéty, K.

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**Table 1** (Continued)

DOI address	Title	Authors
<a href="https://doi.org/10.1016/j.adro.2023.101221">10.1016/j.adro.2023.101221</a>	Is Oligometastatic Cancer Curable? A Survey of Oncologist Perspectives, Decision Making, and Communication	Cho, H.; Balboni, T.; Christ, S.; Turner, B.; Spektor, A.; Perni, S.
<a href="https://doi.org/10.1016/j.adro.2022.101170">10.1016/j.adro.2022.101170</a>	Estimating Carbon Dioxide Emissions and Direct Power Consumption of Linear Accelerator-Based External Beam Radiation Therapy	Shenker, R.; Johnson, T.; Ribeiro, M.; Rodrigues, A.; Chino, J.
<a href="https://doi.org/10.1016/j.adro.2023.101273">10.1016/j.adro.2023.101273</a>	The Pediatric Proton and Photon Therapy Comparison Cohort: Study Design for a Multicenter Retrospective Cohort to Investigate Subsequent Cancers After Pediatric Radiation Therapy	Berrington de González, A.; Gibson, T.; Lee, C.; Albert, P.; Griffin, K.; Kitahara, C.; Liu, D.; Mille, M.; Shin, J.; Bajaj, B.; Flood, T.; Gallotto, S.; Paganetti, H.; Ahmed, S.; Eaton, B.; Indelicato, D.; Milgrom, S.; Palmer, J.; Baliga, S.; Poppe, M.
<a href="https://doi.org/10.1016/j.adro.2023.101276">10.1016/j.adro.2023.101276</a>	A Potential Pitfall and Clinical Solutions in Surface-Guided Deep Inspiration Breath Hold Radiation Therapy for Left-Sided Breast Cancer	Zeng, C.; Fan, Q.; Li, X.; Song, Y.; Kuo, L.; Aristophanous, M.; Cervino, L.; Hong, L.; Powell, S.; Li, G.
<a href="https://doi.org/10.1016/j.adro.2023.101237">10.1016/j.adro.2023.101237</a>	Stereotactic Radiosurgery for Brain Metastases in Patients With Small Cell Lung Cancer	Wang, V.; Juneja, B.; Goldman, H.; Turtz, A.; Bilbao, C.; Xu, Q.; Mulvihill, D.; Eastwick, G.; Kubicek, G.
<a href="https://doi.org/10.1016/j.adro.2022.101107">10.1016/j.adro.2022.101107</a>	American Society of Clinical Oncology 2022 Annual Meeting Highlights for Radiation Oncologists	Dove, A.; Ryckman, J.; Chhabra, A.; Beckta, J.; Chowdhary, M.
<a href="https://doi.org/10.1016/j.adro.2023.101189">10.1016/j.adro.2023.101189</a>	Proton Radiotherapy for Management of Medulloblastoma: A Systematic Review of Clinical Outcomes	Young, S.; Phaterpekar, K.; Tsang, D.; Boldt, G.; Bauman, G.
<a href="https://doi.org/10.1016/j.adro.2023.101238">10.1016/j.adro.2023.101238</a>	Survival in Metastatic Renal Cell Carcinoma Treated With Immunotherapy and Stereotactic Radiation Therapy or Immunotherapy Alone: A National Cancer Database Analysis	Piening, A.; Al-Hammadi, N.; Dombrowski, J.; Hamilton, Z.; Teague, R.; Swaminath, A.; Shahi, J.
<a href="https://doi.org/10.1016/j.adro.2023.101183">10.1016/j.adro.2023.101183</a>	Accuracy and Efficiency of Patient Setup Using Surface Imaging versus Skin Tattoos for Accelerated Partial Breast Irradiation	Mueller, B.; Song, Y.; Chia-Ko, W.; Hsu, H.; Zhai, X.; Tamas, P.; Powell, S.; Cahlon, O.; McCormick, B.; Khan, A.; Gillespie, E.; Cervino, L.; Zhao, B.; Hong, L.; Braunstein, L.
<a href="https://doi.org/10.1016/j.adro.2023.101177">10.1016/j.adro.2023.101177</a>	Clinical Validation of Siemens' Syngo.via Automatic Contouring System	Pera, Ó.; Martínez, Á.; Möhler, C.; Hamans, B.; Vega, F.; Barral, F.; Becerra, N.; Jimenez, R.; Fernandez-Velilla, E.; Quera, J.; Algara, M.
<a href="https://doi.org/10.1016/j.adro.2022.101089">10.1016/j.adro.2022.101089</a>	Decreasing the Adverse Effects in Pelvic Radiation Therapy: A Randomized Controlled Trial Evaluating the Use of Probiotics	Ahrén, I.; Bjurberg, M.; Steineck, G.; Bergmark, K.; Jeppsson, B.
<a href="https://doi.org/10.1016/j.adro.2022.101143">10.1016/j.adro.2022.101143</a>	Preliminary Analysis of a Phase II Trial of Stereotactic Body Radiation Therapy for Prostate Cancer With High-Risk Features After Radical Prostatectomy	Laughlin, B.; Voss, M.; Toesca, D.; Daniels, T.; Golafshar, M.; Keole, S.; Wong, W.; Rwigema, J.; Davis, B.; Schild, S.; Stish, B.; Choo, R.; Lester, S.; DeWees, T.; Vargas, C.
<a href="https://doi.org/10.1016/j.adro.2022.101003">10.1016/j.adro.2022.101003</a>	Definitive Radiation Therapy for Medically Inoperable Endometrial Carcinoma	Shen, J.; O'Connor, K.; Moni, J.; Zweizig, S.; Fitzgerald, T.; Ko, E.
<a href="https://doi.org/10.1016/j.adro.2022.101150">10.1016/j.adro.2022.101150</a>	Management of Adverse Radiation Effect Associated with Stereotactic Radiosurgery of Brain Metastasis in Multiple Sclerosis	Liu, E.; Chen, J.; Braunstein, S.

Ongoing curiosity about advanced imaging modalities like magnetic resonance imaging and positron emission tomography-guided radiation therapy and particle therapy. There was also a brief communication pertaining to the environmental impact of linear accelerators on carbon emissions to round out the list, helping to call attention to a new and increasingly relevant topic in the field.

In addition, 2023's list of top downloads represented contributions from around the world, with authors from 9 different countries and across 4 continents included among this select group. The impact of these publications is also broadly recognized because *Advances* content was downloaded in 179 unique countries over the past year. It serves as a reminder that great radiation oncology scholarship, and use of the valuable insights they provide, is a truly global endeavor. As *Advances* moves into a new phase of leadership and innovation, our editorial board will draw on this information to guide our perspectives on the scholarship we consider for the journal in order to best serve our community around the globe.

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## References

- Trotter J, Pantel A, Teo B, et al. Positron emission tomography (PET)/computed tomography (CT) imaging in radiation therapy treatment planning: a review of PET imaging tracers and methods to incorporate PET/CT. *Adv Radiat Oncol.* 2023;8:101212. <https://doi.org/10.1016/j.adro.2023.101212>.
- Schiff J, Zhao T, Huang Y, et al. Simulation-free radiation therapy: an emerging form of treatment planning to expedite plan generation for patients receiving palliative radiation therapy. *Adv Radiat Oncol.* 2023;8:101091. <https://doi.org/10.1016/j.adro.2022.101091>.
- Sasai K. Olfactory sensations during radiation sessions: a review. *Adv Radiat Oncol.* 2023;8:101119. <https://doi.org/10.1016/j.adro.2022.101119>.
- Chuong M, Herrera R, Ucar A, et al. Causes of death among patients with initially inoperable pancreas cancer after induction chemotherapy and ablative 5-fraction stereotactic magnetic resonance image guided adaptive radiation therapy. *Adv Radiat Oncol.* 2023;8:101084. <https://doi.org/10.1016/j.adro.2022.101084>.
- Restini F, Brito L, Yoshimoto F, et al. Vestibulocochlear delineation for vestibular schwannoma treated with radiation therapy. *Adv Radiat Oncol.* 2023;8:101171. <https://doi.org/10.1016/j.adro.2022.101171>.
- Paczona V, Capala M, Deák-Karancsi B, et al. Magnetic resonance imaging-based delineation of organs at risk in the head and neck region. *Adv Radiat Oncol.* 2023;8:101042. <https://doi.org/10.1016/j.adro.2022.101042>.
- Cho H, Balboni T, Christ S, Turner B, Spektor A, Perni S. Is oligometastatic cancer curable? A survey of oncologist perspectives, decision making, and communication. *Adv Radiat Oncol.* 2023;8:101221. <https://doi.org/10.1016/j.adro.2023.101221>.
- Shenker R, Johnson T, Ribeiro M, Rodrigues A, Chino J. Estimating carbon dioxide emissions and direct power consumption of linear accelerator-based external beam radiation therapy. *Adv Radiat Oncol.* 2023;8:101170. <https://doi.org/10.1016/j.adro.2022.101170>.
- Berrington de González A, Gibson T, Lee C, et al. The pediatric proton and photon therapy comparison cohort: study design for a multicenter retrospective cohort to investigate subsequent cancers after pediatric radiation therapy. *Adv Radiat Oncol.* 2023;8:101273. <https://doi.org/10.1016/j.adro.2023.101273>.
- Zeng C, Fan Q, Li X, et al. A potential pitfall and clinical solutions in surface-guided deep inspiration breath hold radiation therapy for left-sided breast cancer. *Adv Radiat Oncol.* 2023;8:101276. <https://doi.org/10.1016/j.adro.2023.101276>.
- Wang V, Juneja B, Goldman H, et al. Stereotactic radiosurgery for brain metastases in patients with small cell lung cancer. *Adv Radiat Oncol.* 2023;8:101237. <https://doi.org/10.1016/j.adro.2023.101237>.
- Dove A, Ryckman J, Chhabra A, Beckta J, Chowdhary M, American Society of Clinical Oncology. American Society of Clinical Oncology 2022 Annual Meeting Highlights for Radiation Oncologists. *Adv Radiat Oncol.* 2023;8:101107. <https://doi.org/10.1016/j.adro.2022.101107>.
- Young S, Phaterpekar K, Tsang D, Boldt G, Bauman G. Proton radiotherapy for management of medulloblastoma: a systematic review of clinical outcomes. *Adv Radiat Oncol.* 2023;8:101189. <https://doi.org/10.1016/j.adro.2023.101189>.
- Piening A, Al-Hammedi N, Dombrowski J, et al. Survival in metastatic renal cell carcinoma treated with immunotherapy and stereotactic radiation therapy or immunotherapy alone: a national cancer database analysis. *Adv Radiat Oncol.* 2023;8:101238. <https://doi.org/10.1016/j.adro.2023.101238>.
- Mueller B, Song Y, Chia-Ko W, et al. Accuracy and efficiency of patient setup using surface imaging versus skin tattoos for accelerated partial breast irradiation. *Adv Radiat Oncol.* 2023;8:101183. <https://doi.org/10.1016/j.adro.2023.101183>.
- Pera Ó, Martínez Á, Möhler C, et al. Clinical validation of Siemens' Syngo.via automatic contouring system. *Adv Radiat Oncol.* 2023;8:101177. <https://doi.org/10.1016/j.adro.2023.101177>.
- Ahrén I, Bjurberg M, Steineck G, Bergmark K, Jeppsson B. Decreasing the adverse effects in pelvic radiation therapy: a randomized controlled trial evaluating the use of probiotics. *Adv Radiat Oncol.* 2023;8:101089. <https://doi.org/10.1016/j.adro.2022.101089>.
- Laughlin B, Voss M, Toesca D, et al. Preliminary analysis of a phase II trial of stereotactic body radiation therapy for prostate cancer with high-risk features after radical prostatectomy. *Adv Radiat Oncol.* 2023;8:101143. <https://doi.org/10.1016/j.adro.2022.101143>.
- Shen J, O'Connor K, Moni J, Zweizig S, Fitzgerald T, Ko E. Definitive radiation therapy for medically inoperable endometrial carcinoma. *Adv Radiat Oncol.* 2023;8:101003. <https://doi.org/10.1016/j.adro.2022.101003>.
- Liu E, Chen J, Braunstein S. Management of adverse radiation effect associated with stereotactic radiosurgery of brain metastasis in multiple sclerosis. *Adv Radiat Oncol.* 2023;8:101150. <https://doi.org/10.1016/j.adro.2022.101150>.