



QUARTET Research Outputs

Updated 19/12/2023

1. Abstracts

Kelly, Sarah, Enrico Clementel, Mark N Gaze, Gary Royle, and Tom Boterberg. 2019. "V686 SIOPE19-1652 Identifying Potential Normal Tissues of Interest for the Paediatric Radiotherapy Population." *Pediatric Blood & Cancer* 66 (S4): 488. <https://doi.org/10.1002/pbc.27989>.

Kelly, S., E. Clementel, M. Gaze, G. Royle, and T. Boterberg. 2019. "Towards a Consensus on Normal Tissues of Interest for the Paediatric Radiotherapy Population." In *International Journal of Radiation Oncology*Biography*Physics*, 105:910. Elsevier Inc. <https://doi.org/10.1016/j.ijrobp.2019.07.037>.

Kelly, S., R. Effenev, M. Gaze, H. Mandeville, and T. Boterberg. 2020. "[ABSTRACT 0170/#834] QUARTET: A SIOPE Europe Project for Quality and Excellence in Radiotherapy and Imaging for Children and Adolescents with Cancer." In *Pediatric Blood & Cancer*, 67:S82–83. <https://doi.org/10.1002/pbc.28742.1>

Mir, R., S. Kelly, Y. Xiao, A Moore, C Clark, E Clementel, C Corning, et al. 2020. "PO-1294: Consistency of OAR Delineation for Clinical Trials: A Global Harmonization Group Consensus." *Radiotherapy and Oncology* 152 (November): S682–83. [https://doi.org/10.1016/S0167-8140\(21\)01312-8](https://doi.org/10.1016/S0167-8140(21)01312-8)

Boterberg T, Magelssen H, Ledoux B, Kelly SM, Dieckmann K, Malinova B, et al. POSTER ABSTRACT P318 Relationship between local control and quality assurance of radiotherapy. A report from the radiotherapy committee of the SIOPE High Risk Neuroblastoma Trial (HRNBL1/SIOPE). *Adv. Neuroblastoma Res.*, 2021, p. 575–6

Kelly, Sarah M., Rachel Effenev, Mark N. Gaze, Henry Mandeville, and Tom Boterberg. 2021. "ABSTRACT The Quality and Excellence in Radiotherapy and Imaging for Children and Adolescents with Cancer across Europe in Clinical Trials (QUARTET) Project." In *CCLG Winter Meeting 2021*, 1–2.

Turcas A, Kelly S, Boterberg T, Mandeville H. ABSTRACT 0065/#714 The vertebrae as OARs in paediatric radiotherapy clinical trials. *Pediatr. Blood Cancer*, vol. 69, NLM (Medline); 2022, p. s32. <https://doi.org/10.1002/PBC.29952>.

Kelly SM, Effenev R, Gaze MN, Mandeville HC, Boterberg T. ABSTRACT #73: QUARTET: A SIOPE Europe project for quality and excellence in radiotherapy through standardisation and peer-review of treatment planning. *Cancer Res. Inst. Ghent OncoPoint Symp.*, 2022.

Kelly SM, Pötschger U, Arnardottir HB, Boterberg T, Dieckmann K, Beck-Popovic M, et al. ABSTRACT #74: Radiotherapy quality assurance outcome and survival in the SIOPE high-risk neuroblastoma trial (HR-NBL1/SIOPE). A report from the radiotherapy committee. *Cancer Res. Ghent OncoPoint Symp.*, 2022.

Kelly SM, Pötschger U, Arnardottir HB, Boterberg T, Dieckmann K, Beck Popovic M, et al. Radiotherapy quality assurance outcome and its correlation with survival in the SIOPE High-Risk Neuroblastoma trial (HR-NBL1/SIOPE). A report from the radiotherapy committee [PROS 2022 Abstract 1074]. *Int J Radiat Oncol* 2022;114:1074. <https://doi.org/10.1016/j.ijrobp.2022.09.041>

Davey A, Pan S, Bryce-Atkinson A, Mandeville H, Janssens GO, Kelly SM, et al. The need for consensus on delineation and dose constraints of dento-facial structures in paediatric radiotherapy: results of a SIOPE survey [PROS 2022 Abstract 1071]. *Int J Radiat Oncol* 2022;114:1071–2. <https://doi.org/10.1016/j.ijrobp.2022.09.035>



Turcas A, Kelly S, Tom B, Mandeville H. The Vertebrae as OARs in Paediatric Radiotherapy Clinical Trials: Initial QUARTET experience [PROS 2022 Abstract 1073]. *Int J Radiat Oncol* 2022;114:1073. <https://doi.org/10.1016/j.ijrobp.2022.09.039>

Kelly S, Turcas A, Corning C, Boterberg T, Gandola L, Gaze M, et al. ESTRO ABSTRACT OC-0422: Treatment planning compliance rates in paediatric clinical trials: preliminary report from QUARTET. *ESTRO* 2023, 2023, p. 338–9. *Radiother Oncol* 2023;182

Turcas A, Kelly S, Clementel E, Gaze E, Gandola L, Horan G, et al. ESTRO ABSTRACT PO-1737: Profile of centres participating in paediatric radiotherapy clinical trials: initial QUARTET report. *ESTRO* 2023, 2023, p. 1471–2. *Radiother Oncol* 2023;182

Turcas A, Gheara C, Leucuta D, Balan C, Cernea D. ESTRO ABSTRACT PO-1648 Deep learning based automatic segmentation for brain oars. *Radiother Oncol* 2023;182. *ESTRO* 2023

Taylor P, Clark C, Lehmann J, Nakamura M, Palmans H, Hoffman L, et al. ESTRO ABSTRACT OC-0419: Are we so different? An international risk comparison of photon v proton clinical trial QA. *ESTRO* 2023, 2023, p. 334–5. <https://user-swndwmf.cld.bz/ESTRO-2023-Abstract-Book1>

Taylor PA, Lehmann J, Clark C, Miles E, Hoffman L, Kry SF, et al. Risky Business: A failure modes and effects analysis (FMEA) of clinical trial failures for photon and proton therapy. *Am. Assoc. Med. Phys. Congr.* 2023, 2023.

Kelly S, Pötschger U, Arnardottir H, Boterberg T, Dieckmann K, Ladenstein R, et al. POSTER ABSTRACT: Poor radiotherapy worsens overall survival for patients with high-risk neuroblastoma: report from the SIOPEN High-Risk Neuroblastoma Study 1 radiotherapy committee. *Adv. Neuroblastoma Res.* 2023, 2023.

Kelly S, Turcas A, Corning C, Boterberg T, Gaze M, Horan G, et al. Delivering centralised peer-review in paediatric clinical trials - results for treatment plan reviews performed by SIOP Europe's QUARTET project. *SIOP Congr.* 2023, 2023, p. S73. <https://doi.org/https://doi.org/10.1002/pbc.30748>.

Turcas A, Kelly S, Clementel E, Gaze M, Gandola L, Horan G, et al. Initial report of the SIOP Europe QUARTET project on the profile of centres participating in paediatric clinical trials. *SIOP Congr.* 2023, 2023, p. S73-74. <https://doi.org/https://doi.org/10.1002/pbc.30748>.

Turcas A, Kelly S, Blondeel A, Chirila M, Cernea D, Mandeville H. Paediatric Radiotherapy in Romania - current provision and challenges: a survey by the SIOP Europe QUARTET Project. *Pediatr. Blood Cancer*, vol. 70, 2023, p. S192. <https://doi.org/10.1002/pbc.30748>.

2. Publications

Mir, Romaana, Sarah M Kelly, Ying Xiao, Alisha Moore, Catharine H Clark, Enrico Clementel, Coreen Corning, et al. 2020. "Organ at Risk Delineation for Radiation Therapy Clinical Trials: Global Harmonization Group Consensus Guidelines." *Radiotherapy and Oncology* 150 (June): 30–39. <https://doi.org/10.1016/j.radonc.2020.05.038>

Arunagiri, Niruthiga, Sarah M. Kelly, Cathy Dunlea, Olivia Dixon, Jessica Cantwell, Pravesh Bhudia, Tom Boterberg, et al. 2021. "The Spleen as an Organ at Risk in Paediatric Radiotherapy: A SIOP-Europe Radiation Oncology Working Group Report." *European Journal of Cancer* 143 (January): 1–10. <https://doi.org/10.1016/j.ejca.2020.10.025>

Kelly SM, Effeney R, Gaze MN, Bernier-Chastagner V, Blondeel A, Clementel E, et al. QUARTET: A SIOP Europe project for quality and excellence in radiotherapy and imaging for children and adolescents with cancer. *Eur J Cancer* 2022;172:209–20. <https://doi.org/10.1016/j.ejca.2022.05.037>

Taylor PA, Hoffmann L, Kelly SM, Kry SF, Møller DS, Miles E, et al. Prioritizing Clinical Trial Quality Assurance for Photons and Protons: A Failure Modes and Effects Analysis (FMEA) Comparison. *Radiother Oncol* 2023;0:109494. <https://doi.org/10.1016/J.RADONC.2023.109494>

Kelly SM, Turcas A, Corning C, Bailey S, Cañete A, Clementel E, et al. Radiotherapy quality assurance in paediatric clinical trials: first report from six QUARTET-affiliated trials. *Radiother Oncol* 2023;109549. <https://doi.org/10.1016/J.RADONC.2023.109549>.

Turcas A, Kelly SM, Blondeel A, Chirila M, Cernea DM, Mandeville HC. Current provision and challenges for paediatric radiotherapy in Romania: a survey by the SIOP Europe QUARTET project. *EJC Paediatr Oncol* 2023;100007. <https://doi.org/10.1016/J.EJCPED.2023.100007>.

Davey A, Pan S, Bryce-atkinson A, et al: The need for consensus on delineation and dose constraints of dentofacial structures in paediatric radiotherapy: Outcomes of a SIOP Europe survey [Internet]. *Clin Transl Radiat Oncol* 43:100681, 2023 Available from: <https://doi.org/10.1016/j.ctro.2023.100681>

Turcas A, Kelly SM, Bernier-Chastagner V, et al: Management of the vertebrae as an organ at risk in paediatric radiotherapy clinical trials: Initial QUARTET experience [Internet]. *Radiother Oncol* 187:109810, 2023 Available from: <https://doi.org/10.1016/j.radonc.2023.109810>

3. Other

Vinches M, Neven A, Fenwarth L, Terada M, Rossi G, Kelly S. POSTER 1610p There is a lack of clinical research for patients with cancer in palliative care. *ESMO Congr.* 2019, vol. 42, 2019, p. Abstract 205.

Fenwarth L, Neven A, Vinches M, Sarah K, Terada M, Peron J, et al. EHA-1419 The 18-year old clinical trial inclusion threshold is a major obstacle in the access to trials and innovative therapies for adolescents and young adults (AYAS) with acute leukemia. *Eur. Hematol. Assoc. 25th Congr.*, vol. 24, 2020.

Vinches M, Neven A, Fenwarth L, Terada M, Rossi G, Kelly S, et al. Clinical research in cancer palliative care: a metaresearch analysis. *BMJ Support Palliat Care* 2020;10:249–58. <https://doi.org/10.1136/bmjspcare-2019-002086>.

Kelly S, Gaze M. Principles of Radiotherapy. In: Losty PD, La Quaglia M, Sarnacki S, Fuchs J, Taguchi T, editors. *Pediatr. Surg. Oncol. First*, Boca Raton: CRC Press; 2022, p. 18–22. <https://doi.org/10.1201/9781351166126-5>.

Turcas A, Kelly SM, Clementel E, Cernea D. Tomotherapy for cranio-spinal irradiation. *Clin Transl Radiat Oncol* 2023;38:96–103. <https://doi.org/10.1016/j.ctro.2022.11.003>

Turcas A, Gheara C, Leucuta D, Balan C, Cernea D. ESTRO ABSTRACT PO-1648 Deep learning based automatic segmentation for brain oars.pdf. *Radiother Oncol* 2023;182.

Turcas A, Leucuta D, Balan C, et al: Deep-learning magnetic resonance imaging-based automatic segmentation for organs-at-risk in the brain: Accuracy and impact on dose distribution [Internet]. *Phys Imaging Radiat Oncol* 27:100454, 2023 Available from: <https://doi.org/10.1016/j.phro.2023.100454>