

September - October 2021

[a cura di Claudio Vitale e Antonio Angrisani - Università degli Studi della Campania "L. Vanvitelli"]

- **ESTRO vision 2030: the young Italian Association of Radiotherapy and Clinical Oncology (yAIRO) commitment statement**

*“yAIRO recognizes the need and the complexity for an appropriate training in current radiation oncology. **Young members are invited to take an active part in the yAIRO initiatives**: Their contribution can be addressed to the yAIRO Journal Club, that promotes the writing of reviews and comments on relevant, practice changing, scientific articles, or collaborating to the re-organization and update of the yAIRO website.”*

- Groen VH, Zuithoff NPA, van Schie M, Monninkhof EM, Kunze-Busch M, de Boer HCJ, van der Voort van Zyp J, Pos FJ, Smeenk RJ, Haustermans K, Isebaert S, Draulans C, Depuydt T, Verkooijen HM, van der Heide UA, Kerkmeijer LGW.

Anorectal dose-effect relations for late gastrointestinal toxicity following external beam radiotherapy for prostate cancer in the FLAME trial.

Radiother Oncol. 2021 Sep;162:98-104. doi: 10.1016/j.radonc.2021.06.033. Epub 2021 Jun 29. PMID: 34214614.

“The phase III FLAME trial (NCT01168479) showed an increase in five-year biochemical disease-free survival, with no significant increase in toxicity when adding a focal boost to external beam radiotherapy (EBRT) for localized prostate cancer. The aim of this study was to investigate the association between delivered radiation dose to the anorectum and gastrointestinal (GI) toxicity (grade ≥ 2)

- Zhu X, Cao Y, Lu M, Zhao X, Jiang L, Ye Y, Ju X, Zhang H.

Stereotactic body radiation therapy with sequential S-1 for patients with locally advanced pancreatic cancer and poor performance status: An open-label, single-arm, phase 2 trial.

Radiother Oncol. 2021 Sep;162:178-184. doi: 10.1016/j.radonc.2021.07.009. Epub 2021 Jul 16. PMID: 34274393.

“To investigate the efficacy and safety of stereotactic body radiation therapy (SBRT) with sequential S-1 for a particularly neglected group of patients with locally advanced pancreatic cancer (LAPC) and poor performance status, who are usually excluded from most clinical trials”.

- Forster T, Hommertgen A, Häfner MF, Arians N, König L, Harrabi SB, Schlamp I, Köhler C, Meixner E, Heinrich V, Weidner N, Hüsing J, Sohn C, Heil J, Golatta M, Hof H, Krug D, Debus J, Hörner-Rieber J.

Quality of life after simultaneously integrated boost with intensity-modulated versus conventional radiotherapy with sequential boost for adjuvant treatment of breast cancer: 2-year results of the multicenter randomized IMRT-MC2 trial.

Radiother Oncol. 2021 Sep 1;163:165-176. doi: 10.1016/j.radonc.2021.08.019. Epub ahead of print. PMID: 34480960.

“Two-year quality of life results of the prospective, randomized IMRT-MC2 trial, showing non-inferior local control and cosmesis in breast cancer patients after conventionally fractionated intensity-modulated radiotherapy with simultaneously integrated boost (IMRT-SIB), compared to 3D-conformal radiotherapy with sequential boost (3D-CRT-seqB).”

- Yang G, Feng D, Li F, Luo B, Zhu J, Yang Q, Zheng L, Dong Q, Chen M, Xu Z, Li L, Chen P, Sun J.

A randomized, controlled phase II trial of maxillofacial and oral massage in attenuating severe radiotherapy-induced oral mucositis and lipid metabolite changes in nasopharyngeal carcinoma.

Radiother Oncol. 2021 Jul 31;163:76-82. doi: 10.1016/j.radonc.2021.07.024. Epub ahead of print. PMID: 34343545.

“This study investigated the efficacy, safety and underlying mechanism of maxillofacial and oral massage (MOM) in nasopharyngeal carcinoma (NPC) patients receiving intensity-modulated radiotherapy.”

- Glicksman RM, Loblaw A, Morton G, Szumacher E, Chung HT, Vesprini D, Chu W, Liu SK, Choo R, Deabreu A, Mamedov A, Zhang L, Cheung P.

Elective pelvic nodal irradiation with a simultaneous hypofractionated integrated prostate boost for localized high risk prostate cancer: Long term results from a prospective clinical trial.

Radiother Oncol. 2021 Jul 26;163:21-31. doi: 10.1016/j.radonc.2021.07.018. Epub ahead of print. PMID: 34324914.

“Long-term results of elective pelvic nodal irradiation (EPNI) and a simultaneous hypofractionated prostate boost for high-risk prostate cancer.”

- Bourgier C, Cowen D, Castan F, Lemanski C, Gourgou S, Rivera S, Labib A, Peignaux K, Blanc-Onfroy ML, Benyoucef A, Mege A, Douadi-Gaci Z, Racadot S, Latorzeff I, Schick U, Jacquot S, Massabeau C, Guilbert P, Geffrelot J, Ellis S, Lecouillard I, Breton-Callu C, Richard-Tallet A, Boulbair F, Cretin J, Belkacémi Y, Bons F, Azria D, Fenoglietto P.

Quality assurance program and early toxicities in the phase III BONBIS randomized trial evaluating the role of a localized radiation boost in ductal carcinoma in situ.

Radiother Oncol. 2021 Sep 24;164:57-65. doi: 10.1016/j.radonc.2021.09.014. Epub ahead of print. PMID: 34571090.

“This study described the quality assurance (QA) program and early toxicities in the phase III randomized trial BONBIS (NCT00907868) on the role of a localized radiation boost in ductal carcinoma in situ (DCIS).”

- Franceschini D, Fogliata A, Spoto R, Dominici L, Lo Faro L, Franzese C, Comito T, Lobefalo F, Reggiori G, Cozzi L, Sagona A, Gentile D, Scorsetti M.

Long term results of a phase II trial of hypofractionated adjuvant radiotherapy for early-stage breast cancer with volumetric modulated arc therapy and simultaneous integrated boost. Radiother Oncol. 2021 Sep 17;164:50-56. doi: 10.1016/j.radonc.2021.09.006. Epub ahead of print. PMID: 34537289.

“Toxicity and cosmetic outcome with a median follow-up of 6 years of a phase II trial of hypofractionated radiotherapy with volumetric modulated arc therapy (VMAT) and simultaneous integrated boost (SIB) for early-stage breast cancer after conservative surgery.”

- Maldonado F, Gonzalez-Ling A, Oñate-Ocaña LF, Cabrera-Miranda LA, Zatarain-Barrón ZL, Turcott JG, Flores-Estrada D, Lozano-Ruiz F, Cacho-Díaz B, Arrieta O.

Prophylactic Cranial Irradiation in Patients With High-Risk Metastatic Non-Small Cell Lung Cancer: Quality of Life and Neurocognitive Analysis of a Randomized Phase II Study.

Int J Radiat Oncol Biol Phys. 2021 Sep 1;111(1):81-92. doi: 10.1016/j.ijrobp.2021.04.017. Epub 2021 Apr 26. PMID: 33915217.

“This randomized, phase II study evaluated the role of prophylactic cranial irradiation (PCI) in quality of life (QoL) and neurocognitive function (NCF), in patients with non-small cell lung cancer at a high risk for development of brain metastases (BM).”

- Steber CR, Hughes RT, Urbanic J, Clark H, Petty WJ, Blackstock AW, Farris MK.
Long-Term Outcomes From a Phase 2 Trial of Radiofrequency Ablation Combined With External Beam Radiation Therapy for Patients With Inoperable Non-Small Cell Lung Cancer.

Int J Radiat Oncol Biol Phys. 2021 Sep 1;111(1):152-156. doi: 10.1016/j.ijrobp.2021.04.020. Epub 2021 Apr 28. PMID: 33932531.

“Long-term outcomes after external beam radiation therapy (EBRT) and radiofrequency ablation”

*(RFA) for medically **inoperable early-stage non-small cell lung cancer (NSCLC)** are not well known. **The combination** of RFA with EBRT **appears feasible** with favorable long-term local control.”*

- Qiu B, Li Q, Liu J, Huang Y, Pang Q, Zhu Z, Yang X, Wang B, Chen L, Fang J, Lin M, Jiang X, Guo S, Guo J, Wang D, Liu F, Chu C, Huang X, Xie C, Liu H.

Moderately Hypofractionated Once-Daily Compared With Twice-Daily Thoracic Radiation Therapy Concurrently With Etoposide and Cisplatin in Limited-Stage Small Cell Lung Cancer: A Multicenter, Phase II, Randomized Trial.

Int J Radiat Oncol Biol Phys. 2021 Oct 1;111(2):424-435. doi: 10.1016/j.ijrobp.2021.05.003. Epub 2021 May 13. PMID: 33992717.

*“**To compare** the efficacy and toxicity of moderately hypofractionated **once-daily CCTRT with that of a standard twice-daily regimen in** patients with **limited-stage** small cell lung cancer (LS-SCLC).”*

- M.E. Verweij MD , S. Hoendervangers MD PhD , A.M. Couwenberg MD PhD , J.P.M. Burbach MD PhD , M. Berbee MD PhD , J. Buijsen MD PhD , J. Roodhart MD PhD , O. Reerink MD PhD , A. Pronk MD PhD , E.C.J. Consten MD PhD , A.B. Smits MD PhD , J.T. Heikens MD PhD , W.M.U. van Grevenstein MD PhD , M.P.W. Intven MD PhD , H.M. Verkooijen MD PhD

Impact of dose-escalated chemoradiation on quality of life in patients with locally advanced rectal cancer: two year follow-up of the randomized RECTAL-BOOST trial

International Journal of Radiation Oncology, Biology, Physics (2021), doi: <https://doi.org/10.1016/j.ijrobp.2021.09.052>

*“**This study compared patient reported outcomes (PROs) between patients who received dose-escalated chemoradiotherapy (CRT) (5 × 3Gy boost + CRT) or standard CRT** for two years following randomization.”*

- Rischin D, King M, Kenny L, Porceddu S, Wratten C, Macann A, Jackson JE, Bressel M, Herschtal A, Fisher R, Fua T, Lin C, Liu C, Hughes BGM, McGrath M, McDowell L, Corry J.

Randomized Trial of Radiation Therapy With Weekly Cisplatin or Cetuximab in Low-Risk HPV-Associated Oropharyngeal Cancer (TROG 12.01) - A Trans-Tasman Radiation Oncology Group Study.

Int J Radiat Oncol Biol Phys. 2021 Nov 15;111(4):876-886. doi: 10.1016/j.ijrobp.2021.04.015. Epub 2021 Jun 4. PMID: 34098030.

*“**To investigate whether cetuximab, when combined with radiation therapy would result in a decrease in symptom burden and toxicity with similar efficacy compared with weekly cisplatin, in patients with low-risk human papillomavirus (HPV)-associated oropharyngeal squamous cell carcinoma.**”*

- Qiu B, Wang D, Li Q, Wu Y, Guo S, Jiang X, Fang J, Guo J, Liu F, Chu C, Wang B, Chen L, Zhang J, Liu Y, Hu Y, Liu H.

Concurrent Chemoradiation Therapy With or Without Nimotuzumab in Locally Advanced Squamous Cell Lung Cancer: A Phase 2 Randomized Trial.

Int J Radiat Oncol Biol Phys. 2021 Nov 15;111(4):917-925. doi: 10.1016/j.ijrobp.2021.06.032. Epub 2021 Jul 3. PMID: 34229051.

“The study aimed to evaluate the efficacy and safety of concurrent chemoradiation therapy (CCRT) combined with nimotuzumab in patients with unresectable stage III squamous cell lung cancer (SqCLC).”

- Goodman KA, Ou FS, Hall NC, Bekaii-Saab T, Fruth B, Twohy E, Meyers MO, Boffa DJ, Mitchell K, Frankel WL, Niedzwiecki D, Noonan A, Janjigian YY, Thurmes PJ, Venook AP, Meyerhardt JA, O'Reilly EM, Ilson DH.

Randomized Phase II Study of PET Response-Adapted Combined Modality Therapy for Esophageal Cancer: Mature Results of the CALGB 80803 (Alliance) Trial.

J Clin Oncol. 2021 Sep 1;39(25):2803-2815. doi: 10.1200/JCO.20.03611. Epub 2021 Jun 2. PMID: 34077237; PMCID: PMC8407649.

“To evaluate the use of early assessment of chemotherapy responsiveness by positron emission tomography (PET) imaging to tailor therapy in patients with esophageal and esophagogastric junction adenocarcinoma.”

- Hulshof MCCM, Geijsen ED, Rozema T, Oppedijk V, Buijsen J, Neelis KJ, Nuyttens JJME, van der Sangen MJC, Jeene PM, Reinders JG, van Berge Henegouwen MI, Thanos A, van Hooft JE, van Laarhoven HWM, van der Gaast A.

Randomized Study on Dose Escalation in Definitive Chemoradiation for Patients With Locally Advanced Esophageal Cancer (ARTDECO Study).

J Clin Oncol. 2021 Sep 1;39(25):2816-2824. doi: 10.1200/JCO.20.03697. Epub 2021 Jun 8. PMID: 34101496.

“This analyzed the effect of radiation dose escalation to the primary tumor on local tumor control in definitive chemoradiation (dCRT) for patients with esophageal cancer.”

- Rothschild SI, Zippelius A, Eboulet EI, Savic Prince S, Betticher D, Bettini A, Früh M, Joerger M, Lardinois D, Gelpke H, Mauti LA, Britschgi C, Weder W, Peters S, Mark M, Cathomas R, Ochsenbein AF, Janthur WD, Waibel C, Mach N, Froesch P, Buess M, Bohanes P, Godar G, Rusterholz C, Gonzalez M, Pless M;

Swiss Group for Clinical Cancer Research (SAKK). SAKK 16/14: Durvalumab in Addition to Neoadjuvant Chemotherapy in Patients With Stage IIIA(N2) Non-Small-Cell Lung Cancer-A Multicenter Single-Arm Phase II Trial.

J Clin Oncol. 2021 Sep 10;39(26):2872-2880. doi: 10.1200/JCO.21.00276. Epub 2021 Jul 12. PMID: 34251873.

“The authors investigated the additional benefit of perioperative cisplatin and docetaxel with durvalumab in patients with resectable stage IIIA(N2) non-small-cell lung cancer.”

- Qin S, Bi F, Gu S, Bai Y, Chen Z, Wang Z, Ying J, Lu Y, Meng Z, Pan H, Yang P, Zhang H, Chen X, Xu A, Cui C, Zhu B, Wu J, Xin X, Wang J, Shan J, Chen J, Zheng Z, Xu L, Wen X, You Z, Ren Z, Liu X, Qiu M, Wu L, Chen F.

Donafenib Versus Sorafenib in First-Line Treatment of Unresectable or Metastatic Hepatocellular Carcinoma: A Randomized, Open-Label, Parallel-Controlled Phase II-III Trial.

J Clin Oncol. 2021 Sep 20;39(27):3002-3011. doi: 10.1200/JCO.21.00163. Epub 2021 Jun 29. PMID: 34185551; PMCID: PMC8445562.

“Donafenib, a novel multikinase inhibitor and a deuterated sorafenib derivative, has shown efficacy in phase Ia and Ib hepatocellular carcinoma (HCC) studies. This study compared the efficacy and safety of donafenib versus sorafenib as first-line therapy for advanced HCC.”

- Bolla M, Neven A, Maingon P, Carrie C, Boladeras A, Andreopoulos D, Engelen A, Sundar S, van der Steen-Banasik EM, Armstrong J, Peignaux-Casasnovas K, Boustani J, Herrera FG, Pieters BR, Slot A, Bahl A, Scrase CD, Azria D, Jansa J, O'Sullivan JM, Van Den Bergh ACM, Collette L;

EORTC Radiation Oncology Group. Short Androgen Suppression and Radiation Dose Escalation in Prostate Cancer: 12-Year Results of EORTC Trial 22991 in Patients With Localized Intermediate-Risk Disease.

J Clin Oncol. 2021 Sep 20;39(27):3022-3033. doi: 10.1200/JCO.21.00855. Epub 2021 Jul 26. PMID: 34310202.

“Long-term results in intermediate-risk patients treated with 74 or 78 Gy EBRT, plus 6 months of concomitant and adjuvant androgen suppression (AS) in intermediate- and high-risk localized prostatic carcinoma patients.”

- Moskowitz AJ, Shah G, Schöder H, Ganesan N, Drill E, Hancock H, Davey T, Perez L, Ryu S, Sohail S, Santarosa A, Galasso N, Neuman R, Liotta B, Blouin W, Kumar A, Lahoud O, Batlevi CL, Hamlin P, Straus DJ, Rodriguez-Rivera I, Owens C, Caron P, Intlekofer AM, Hamilton A, Horwitz SM, Falchi L, Joffe E, Johnson W, Lee C, Palomba ML, Noy A, Matasar MJ, Pongas G, Salles G, Vardhana S, Sanin BW, von Keudell G, Yahalom J, Dogan A, Zelenetz AD, Moskowitz CH.

Phase II Trial of Pembrolizumab Plus Gemcitabine, Vinorelbine, and Liposomal Doxorubicin as Second-Line Therapy for Relapsed or Refractory Classical Hodgkin Lymphoma.

J Clin Oncol. 2021 Oct 1;39(28):3109-3117. doi: 10.1200/JCO.21.01056. Epub 2021 Jun 25. PMID: 34170745.

“Phase II study evaluating pembrolizumab plus gemcitabine, vinorelbine, and liposomal doxorubicin (pembro-GVD) as second-line therapy for relapsed or refractory (rel/ref) classical Hodgkin lymphoma (cHL)”

- Rodríguez de Dios N, Couñago F, Murcia-Mejía M, Rico-Oses M, Calvo-Crespo P, Samper P, Vallejo C, Luna J, Trueba I, Sotoca A, Cigarral C, Farré N, Manero RM, Durán X, Gispert JD, Sánchez-Benavides G, Rognoni T, Torrente M, Capellades J, Jiménez M, Cabada T, Blanco M, Alonso A, Martínez-San Millán J, Escribano J, González B, López-Guerra JL. Randomized Phase III Trial of Prophylactic Cranial Irradiation With or Without Hippocampal Avoidance for Small-Cell Lung Cancer (PREMER): A GICOR-GOECF-SEOR Study. J Clin Oncol. 2021 Oct 1;39(28):3118-3127. doi: 10.1200/JCO.21.00639. Epub 2021 Aug 11. PMID: 34379442.

*“Sparing the hippocampus during PCI better preserves cognitive function in patients with SCLC. **No differences were observed with regard to brain failure, OS, and QoL compared with standard PCI.**”*

- Rose TL, Harrison MR, Deal AM, Ramalingam S, Whang YE, Brower B, Dunn M, Osterman CK, Heiling HM, Bjurlin MA, Smith AB, Nielsen ME, Tan HJ, Wallen E, Woods ME, George D, Zhang T, Drier A, Kim WY, Milowsky MI.

Phase II Study of Gemcitabine and Split-Dose Cisplatin Plus Pembrolizumab as Neoadjuvant Therapy Before Radical Cystectomy in Patients With Muscle-Invasive Bladder Cancer.

J Clin Oncol. 2021 Oct 1;39(28):3140-3148. doi: 10.1200/JCO.21.01003. Epub 2021 Aug 24. PMID: 34428076; PMCID: PMC8478388.

*“The Authors evaluate the **safety and efficacy of gemcitabine and cisplatin in combination with the***

immune checkpoint inhibitor pembrolizumab as neoadjuvant therapy before radical cystectomy (RC) in muscle-invasive bladder cancer.

- van de Voort EMF, Struik GM, Koppert LB, Moelker A, Debets R, Yo G, Macco MJPV, Sinke RHJA, Franckena M, Birnie E, Verhoef C, Klem TMAL.

Treatment of early-stage breast cancer with percutaneous thermal ablation, an open-label randomised phase 2 screening trial: rationale and design of the THERMAC trial.

BMJ Open. 2021 Sep 6;11(9):e052992. doi: 10.1136/bmjopen-2021-052992. PMID: 34489297; PMCID: PMC8422491.

*“To evaluate the **percutaneous thermal ablation as a possible treatment in early-stage breast cancer, to avoid surgical excision, reduce treatment-related morbidity and increase patients' quality of life with no cost in treatment effectiveness.**”*

- Sartor O, de Bono J, Chi KN, Fizazi K, Herrmann K, Rahbar K, Tagawa ST, Nordquist LT, Vaishampayan N, El-Haddad G, Park CH, Beer TM, Armour A, Pérez- Contreras WJ, DeSilvio M, Kpamegan E, Gericke G, Messmann RA, Morris MJ, Krause BJ; VISION Investigators.

Lutetium-177-PSMA-617 for Metastatic Castration-Resistant Prostate Cancer.

N Engl J Med. 2021 Sep 16;385(12):1091-1103. doi: 10.1056/NEJMoa2107322. Epub 2021 Jun 23. PMID: 34161051; PMCID: PMC8446332.

*“Radioligand therapy with **177Lu-PSMA-617 prolonged imaging-based progression-free survival and overall survival when added to standard care in patients with advanced PSMA-positive metastatic castration-resistant prostate cancer.**”*

- Zhao H, Yao W, Min X, Gu K, Yu G, Zhang Z, Cui J, Miao L, Zhang L, Yuan X, Fang Y, Fu X, Hu C, Zhu X, Fan Y, Yu Q, Wu G, Jiang O, Du X, Liu J, Gu W, Hou Z, Wang Q, Zheng R, Zhou X, Zhang L.

Apatinib Plus Gefitinib as First-Line Treatment in Advanced EGFR-Mutant NSCLC: The Phase III ACTIVE Study (CTONG1706).

J Thorac Oncol. 2021 Sep;16(9):1533-1546. doi: 10.1016/j.jtho.2021.05.006. Epub 2021 May 24. PMID: 34033974.

*“This study evaluated **apatinib, a vascular endothelial growth factor receptor 2 tyrosine kinase inhibitor, plus gefitinib as first-line therapy in EGFR-mutant NSCLC.**”*

- Weng JK, Lei X, Schlembach P, Bloom ES, Shaitelman SF, Arzu IY, Chronowski G, Dvorak T, Grade E, Hoffman K, Perkins G, Reed VK, Shah SJ, Stauder MC, Strom EA, Tereffe W, Woodward WA, Hortobagyi GN, Hunt KK, Buchholz TA, Smith BD.

Five-Year Longitudinal Analysis of Patient-Reported Outcomes and Cosmesis in a Randomized Trial of Conventionally Fractionated Versus Hypofractionated Whole-Breast Irradiation.

Int J Radiat Oncol Biol Phys. 2021 Oct 1;111(2):360-370. doi: 10.1016/j.ijrobp.2021.05.004. Epub 2021 May 13. PMID: 33992718

“To compare the patient-reported outcomes (PROs) and cosmesis after conventional fractionated (CF) whole-breast irradiation (WBI) plus a boost versus hypofractionated (HF) WBI.”

- Wang MH, Vos LJ, Yee D, Patel S, Pervez N, Parliament M, Usmani N, Danielson B, Amanie J, Pearcey R, Ghosh S, Field C, Fallone BG, Murtha AD.

Clinical Outcomes of the CHIRP Trial: A Phase II Prospective Randomized Trial of Conventionally Fractionated Versus Moderately Hypofractionated Prostate and Pelvic Nodal Radiation Therapy in Patients With High-Risk Prostate Cancer.

Pract Radiat Oncol. 2021 Sep-Oct;11(5):384-393. doi: 10.1016/j.pro.2021.02.011. Epub 2021 Mar 9. PMID: 33705985.

“In this study, the Authors evaluated gastrointestinal (GI) or genitourinary (GU) toxicity in exclusively prostate cancer high-risk patients treated with hypofractionated (HF) or conventionally fractionated (CF) prostate and pelvic nodal radiation.”

- Al-Rajhi NM, Khalil EM, Ahmad S, Soudy H, AlGhazi M, Fatani DM, Memon M, Abouzied M, Khafaga YM.

Low-dose fractionated radiation with induction docetaxel and cisplatin followed by concurrent cisplatin and radiation therapy in locally advanced nasopharyngeal cancer: A randomized phase II-III trial.

Hematol Oncol Stem Cell Ther. 2021 Sep;14(3):199-205. doi: 10.1016/j.hemonc.2020.05.005. Epub 2020 May 21. PMID: 32504593.

“To evaluate the efficacy and outcome of adding low-dose fractionated radiotherapy (LDFRT) to induction chemotherapy plus concurrent chemoradiation in locally advanced nasopharyngeal carcinoma (LANPC).”

- Arscott WT, Nead KT, Bear A, Venigalla S, Shabason J, Lukens JN, Plastaras JP, Wojcieszynski A, Metz J, O'Hara M, Reiss KA, Teitelbaum U, Loaiza-Bonilla A, Drebin J, Lee MK 4th, Shroff SG, Ben-Josef E. Concurrent Nab-paclitaxel and Radiotherapy: Novel Radiosensitization for Borderline Resectable or Unresectable Pancreatic Cancer. *Am J Clin Oncol*. 2021 Sep 1;44(9):469-474. doi: 10.1097/COC.0000000000000854. PMID: 34310350; PMCID: PMC8404955.

*"This study evaluated the **toxicity and tumor response with concurrent nab-paclitaxel chemoradiotherapy (CRT) compared with standard (5-fluorouracil or gemcitabine) CRT in borderline resectable or unresectable pancreatic cancer"***

- Misra S, Yeshala SK, Singh S, Singh RK, Maria Das KJ, Kumar S, Kumar S.

A Pilot Study of Perioperative Cisplatin-Capecitabine Chemotherapy With Preoperative Chemoradiation for Resectable Gastric Cancers.

Am J Clin Oncol. 2021 Sep 1;44(9):475-481. doi: 10.1097/COC.0000000000000844. PMID: 34183522.

*"To assess the **feasibility of the perioperative chemotherapy based on cisplatin-capecitabine with the preoperative chemoradiation in patients with resectable gastric cancer.**"*

- **Gemcitabine with or without ramucirumab as second-line treatment for malignant pleural mesothelioma (RAMES): a randomised, double-blind, placebo-controlled, phase 2 trial**

*"The anti-VEGFR-2 antibody **Ramucirumab plus gemcitabine significantly improved overall survival after first-line standard chemotherapy**, with a favourable safety profile."*

- **Stereotactic ablative radiotherapy for operable stage I non-small-cell lung cancer (revised STARS): long-term results of a single-arm, prospective trial with prespecified comparison to surgery**

*"This study reports **long-term results of the revised STARS trial**, in which the **SABR group was re-accrued** with a **larger sample size**. **Long-term survival after SABR is non-inferior to VATS L-MLND for operable stage IA NSCLC**. SABR remains promising for such cases but multidisciplinary management is strongly recommended"*

- **Stereotactic body radiotherapy plus pembrolizumab and trametinib versus stereotactic body radiotherapy plus gemcitabine for locally recurrent pancreatic**

cancer after surgical resection: an open-label, randomised, controlled, phase 2 trial

“The combination of *SBRT plus pembrolizumab and trametinib could be a novel treatment option for patients with locally recurrent pancreatic cancer after surgery.*”

- **Sintilimab Plus Platinum and Gemcitabine as First-Line Treatment for Advanced or Metastatic Squamous NSCLC: Results From a Randomized, Double-Blind, Phase 3 Trial (ORIENT-12).**

“Regarding PFS, *sintilimab plus GP reveals clinical benefit than GP alone as first-line therapy in patients with locally advanced or metastatic sqNSCLC.* The toxicity was acceptable, and no new unexpected safety signals were observed.”

- **Alliance Foundation Trial 09: A Randomized, Multicenter, Phase 2 Trial Evaluating Two Sequences of Pembrolizumab and Standard Platinum-Based Chemotherapy in Patients With Metastatic NSCLC**

“Arm A = Arm B. Additional evaluation of either sequence in a phase 3 trial is not warranted”

- **Lutetium-177-PSMA-617 for Metastatic Castration-Resistant Prostate Cancer.**
“An international, open-label, phase 3 trial evaluating 177Lu-PSMA-617 in patients who had metastatic castration-resistant prostate cancer previously treated with at least one androgen-receptor-pathway inhibitor and one or two taxane regimens and who had PSMA-positive gallium-68 (68Ga)-labeled PSMA-11 positron-emission tomographic-computed tomographic scans. Radioligand therapy with 177Lu-PSMA-617 prolonged imaging-based progression-free survival and overall survival when added to standard care in patients with advanced PSMA-positive metastatic castration-resistant prostate cancer.”
- Al-Rajhi NM, Khalil EM, Ahmad S, Soudy H, AlGhazi M, Fatani DM, Memon M, Abouzied M, Khafaga YM.

Low-dose fractionated radiation with induction docetaxel and cisplatin followed by concurrent cisplatin and radiation therapy in locally advanced nasopharyngeal cancer: A randomized phase II-III trial.

Hematol Oncol Stem Cell Ther. 2021 Sep;14(3):199-205. doi:
10.1016/j.hemonc.2020.05.005. Epub 2020 May 21. PMID: 32504593.

“To evaluate the efficacy and outcome of adding low-dose fractionated radiotherapy (LDFRT) to induction chemotherapy plus concurrent chemoradiation in locally advanced nasopharyngeal carcinoma (LANPC).

The results showed no benefit from adding LDFRT to induction chemotherapy in terms of RR, OS, LRC, and DMFS.”

- **Infigratinib (BGJ398) in previously treated patients with advanced or metastatic cholangiocarcinoma with FGFR2 fusions or rearrangements: mature results from a multicentre, open-label, single-arm, phase2 study. Lancet Gastroenterol Hepat.**

*“Treatment options are sparse for patients with advanced cholangiocarcinoma after progression on first-line gemcitabine-based therapy. FGFR2 fusions or rearrangements occur in 10-16% of patients with intrahepatic cholangiocarcinoma. Infigratinib is a selective, ATP-competitive inhibitor of fibroblast growth factor receptors. We aimed to evaluate the antitumour activity of infigratinib in patients with locally advanced or metastatic cholangiocarcinoma, FGFR2 alterations, and previous gemcitabine-based treatment. **Infigratinib has promising clinical activity and a manageable adverse event profile in previously treated patients with locally advanced or metastatic cholangiocarcinoma harbouring FGFR2 gene fusions or rearrangements”***

- Santoro A, Mazza R, Spina M, Califano C, Specchia G, Carella M, Consoli U, Palombi F, Musso M, Pulsoni A, Kovalchuk S, Bonfichi M, Ricci F, Fabbri A, Liberati AM, Rodari M, Giordano L, Chimienti E, Balzarotti M, Sorasio R, Gallamini A, Ghiggi C, Ciammella P, Ricardi U, Chauvie S, Carlo-Stella C, Merli F.

Dose-dense ABVD as first-line therapy in early-stage unfavorable Hodgkin lymphoma: results of a prospective, multicenter double-step phase II study by Fondazione Italiana Linfomi.

Ann Hematol. 2021 Oct;100(10):2547-2556. doi:10.1007/s00277-021-04604-x. Epub 2021 Jul 30. PMID: 34327561

*“We investigated the **feasibility and activity of an intensified dose-dense ABVD (dd-ABVD) regimen in patients with early-stage unfavorable Hodgkin lymphoma (HL).** This prospective, multicenter, phase II study enrolled 96 patients with newly diagnosed, unfavorable stage I or II classical HL. The patients received four cycles of dd-ABVD followed by radiotherapy. 90 (93.8%) patients showed complete response at the end of treatment. **With a follow-up of 80.9 months (3.3-103.2), the median progression-free survival (PFS) and overall survival (OS) were not reached. At 84 months, PFS and OS rates were 88.4% and 95.7%, respectively.** No evidence for a difference in PFS or OS was observed for PET-2-negative and PET-2-positive patients.”*

- Arscott WT, Nead KT, Bear A, Venigalla S, Shabason J, Lukens JN, Plastaras P, Wojcieszynski A, Metz J, O'Hara M, Reiss KA, Teitelbaum U, Loaiza-Bonilla A, Drebin J, Lee MK 4th, Shroff SG, Ben-Josef E.

Concurrent Nab-paclitaxel and Radiotherapy: Novel Radiosensitization for

Borderline Resectable or Unresectable Pancreatic Cancer. Am J Clin Oncol. 2021 Sep 1;44(9):469-474. doi:10.1097/COC.0000000000000854. PMID: 34310350; PMCID: PMC8404955.

“Nab-paclitaxel CRT had similar toxicity compared with standard CRT in the treatment of borderline resectable or unresectable pancreatic cancer. Its use was associated with an arithmetically lower cumulative incidence of local failure and an arithmetically higher conversion to resectability, both of which were not statistically significant.”