Methods Scans from 20 patients with pelvic recurrence were used, delivering EBRT 45Gy/25 fractions to pelvis followed by SBRT boost. Cumulative dose limits for bowel, bladder, sigmoid, rectum and sciatic nerve were converted to 5 and 10 fraction equivalent constraints. For isotoxic planning, prescription was escalated/de-escalated until any OAR dose constraint was exceeded. Feasible tumour doses (EQD210) with 5 and 10 fractions were compared.

Results With conventional VMAT 20 Gy in 10 fractions, median GTV and PTV dose was 20.0Gy (total EQD210 64.2Gy). Using isotropic SBRT planning for central pelvic disease, median PTV dose (EQD210) was 29.9Gy (total 74.1Gy) with 5 fractions compared to 32.9Gy (77.2Gy) with 10 fractions and GTV 30.8Gy (cumulative 75Gy) versus 33.9Gy (cumulative78.1Gy) (p<0.0001). Similarly, with pelvic sidewall disease isototoxic doses were increased with 10 fractions: PTV 42.2Gy (cumulative 86.4Gy) versus 45.5Gy (cumulative 89.7Gy); GTV 45Gy (cumulative 89.2Gy) versus 48.6Gy (cumulative$^92.9$ Gy) (p<0.0001)

Conclusions Longer fractionation can significantly increase deliverable tumour doses. Further investigation is required to determine optimal patient specific regimes.

**EP060/#889 \ IMPACT OF MANDATORY VERSUS OPTIMAL ORGAN AT RISK DOSE CONSTRAINTS FOR ISO TOXIC DOSE ESCALATION WITH AN SBRT BOOST FOR RECURRENT GYNAECOLOGICAL CANCER**

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**Objectives** Outcomes using external beam radiotherapy alone for pelvic recurrence are poor. Stereotoxic radiotherapy (SBRT) can potentially improve local control by dose escalation. Isotoxic planning using cumulative OAR dose tolerances is internationally established for intracutaneous brachytherapy, with GEC-ESTRO tolerances modified with new optimal constraints. Aim: To evaluate the impact of different OAR target doses on an isotoxic dose-escalation approach with SBRT for locally recurrent gynaecological cancer.

**Methods** Dosimetric studies were undertaken on 20 planning scans, 10 central recurrent disease (CRD) and 10 pelvic sidewall recurrences (SWRD), delivering 45Gy/25 fractions to pelvis followed by SBRT boost. Mandatory and optimal dose constraints were defined for 2cc bowel bladder, sigmoid, and rectum, and 1cc sciatic nerve. Starting with 20Gy/5 fractions, the prescription dose was escalated or de-escalated until OAR dose limits were exceeded.

**Results** Median GTV volume was CRD 41.52 cm$^3$, SWRD 26.17 cm$^3$. With conventional VMAT boost, median PTV dose was 20Gy (cumulative EQD210 64.3Gy) and GTV 19.8Gy (64.1Gy). For CRD, median SBRT prescription dose was 17.4Gy/5 fractions (EQD210 19.5Gy) with optimal constraints, increased to 21.1Gy (26.6Gy) mandatory constraints. This resulted in median EQD210 PTV 22.3Gy (cumulative 66.6Gy) versus 29.9Gy (74.1Gy); GTV 22.6 Gy (66.9Gy) versus 30.8Gy (75Gy) respectively. With SWRD, higher prescription doses were feasible, optimal 23.5Gy (28.8 Gy EQD210) versus 26.7Gy (34.1Gy) mandatory. This resulted in PTV 29.9Gy(79.2Gy) versus 42.2Gy (total 86.4Gy); GTV 36.9Gy (total 81.1Gy) versus 45Gy (total 89.2Gy).

**Conclusions** SBRT boost can significantly dose escalate to tumour using mandatory GEC-ESTRO dose constraints, particularly for sidewall disease.
performed a meta-analysis for investigating the association between the extent of radical excision and survival after radical hysterectomy for early-stage cervical cancer.

Methods We searched studies which compared disease-free survival (DFS) or overall survival (OS) between type I (A) or II (B) and type III (C) hysterectomy reported till January 2022. In total, we used six studies including 1,010 patients with stage IB-IIB diseases in this meta-analysis. We compared DFS and OS, surgical outcomes, complications and the pattern of recurrence between the two groups.

Results There were no differences in DFS and OS (hazard ratios, 0.810 and 0.605; 95% confidence intervals [CIs], 0.539 to 1.215 and 0.324 to 1.130 between type I (A) or II (B) and type III (C) hysterectomy. Operation time and hospitalization were shorter, and blood loss and the rate of bladder dysfunction were less (standard difference in means, -1.213, -0.794, -1.010 and -0.855; 95% CIs, -1.360 to -1.065, -0.991 to -0.597, -1.170 to -0.850 and -1.233 to -0.558) in type I (A) or II (B) hysterectomy. However, there were no differences in surgical complications and the pattern of recurrence between the two groups.

Conclusions Type I (A) or II (B) hysterectomy may have the similar effect on survival to type III (C) hysterectomy for early-stage cervical cancer with an improvement of surgical outcomes and bladder dysfunction.