underwent evaluation of pelvic and/or para-aortic lymph node status and 92 (43%) had positive lymph nodes. For node-negative patients, there was no difference in 5 year survival between those who received adjuvant pelvic radiation +/- vaginal brachytherapy (n = 52) versus brachytherapy alone (n = 46) (0.73 vs 0.70, P = .729). Among patients with positive lymph nodes (n = 92), 16 patients received radiation alone versus 50 who received combination of chemotherapy +/- radiation. Chemotherapy did not improve 5-year overall survival compared with radiation alone (0.48 vs 0.50, P = .761).

Conclusions: Among women with grade 3 deeply invasive endometrioid adenocarcinoma, vaginal cuff brachytherapy alone resulted in similar survival compared with pelvic radiation in node-negative patients. The addition of chemotherapy did not show clear benefit compared with radiation therapy alone in women with positive nodes.

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100 - Featured Poster Session
The role of adjuvant radiation in lymph node-positive endometrial adenocarcinoma
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Objectives: The role of adjuvant radiation in patients with locally advanced endometrial adenocarcinoma is controversial. The purpose of this study was to examine the impact of adjuvant radiation on overall survival (OS) and cause-specific survival (CSS) in patients with lymph node-positive endometrial cancer.

Methods: We analyzed all women diagnosed with FIGO stage IIIC endometrial adenocarcinoma in the Surveillance, Epidemiology, and End Results (SEER) database from 2004 to 2012 (n = 2,177). SEER does include details regarding chemotherapy utilization. Patients not undergoing surgery or with missing treatment information were excluded. X² tests were used to compare predictors of treatment received. Cox proportional hazards model and Kaplan-Meier method were used to assess OS and CSS.

Results: The median age was 61 years (range 27–84 years) and the median follow-up was 34 months (6–107 mo). Adjuvant radiation was administered to 1,255 (58%) patients, and therapy consisted of external beam radiation alone (59%), brachytherapy alone (29%), or external beam radiation with brachytherapy (11%). The 3-year actuarial CSS was 80.8% in patients receiving radiation versus 71.9% in patients without radiation (P < .001). The 3-year actuarial OS was 83.6% in patients receiving radiation versus 76.4% in patients without radiation (P < .001). On multivariable analysis, radiation was associated with an improved OS (HR 0.538, 95% CI = 0.428–0.706, P < .001) and CSS (HR 0.548, 95% CI 0.425–0.706, P < .001). Of those receiving radiation, brachytherapy use was not associated with OS (HR 0.552, 95% CI 0.776–1.609, P = .552) or CSS (HR 0.776, 95% CI 0.706–1.593, P = .776). On multivariable analysis, increased number of lymph nodes (continuous) examined (P < .001), younger age (P < .001), and lower grade (P < .001) also were associated with improved OS while increased number of lymph nodes examined (P < .001) and lower grade (P < .001) were associated with improved CSS.

Conclusions: In this large population registry analysis, adjuvant radiation was associated with improved OS and CSS in patients with lymph node-positive endometrial cancer. Prospective data are needed to confirm these findings.

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101 - Featured Poster Session
From identification of therapeutic targets to clinical strategies
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Objectives: shRNA-mediated lethality screening is a useful tool to identify essential targets using functional genomics. Ovarian cancer (OC) has a high response rate initially, but becomes resistant to standard chemotherapy. We analyzed 4 shRNA screens in an unbiased manner to identify druggable molecular targets.

Methods: We selected a total of 55 genes from shRNA screens across 4 OC cell lines. After validating by siRNAs in an expanded set of 6 OC cell lines, 6 candidates were identified for further investigation. Their clinical relevance was examined in The Cancer Genome Atlas (TCGA) OC dataset. To move these findings toward the clinic and to recapitulate the siRNA results, we used pharmacologic inhibitors including oxoozaenol (for MAP3K7/TAK1), BI6772 (PLK1), MK1775 (WEE1), and lapatinib (ERBB2). The cytotoxic effects were measured by XTT assay, as single agents and in 2-way combinations. Cotreatments were evaluated in either sequential or simultaneous exposure to the drug.

Results: Essential targets were identified independent of OC subtype or p53 status. Candidate genes were dysregulated in a subset of TCGA OCs, though their alterations showed no significant correlation to overall survival. Oxoozaenol, BI6772, and MK1775 showed cytotoxic effects on OC cell lines regardless of cisplatin responsiveness, whereas all OC cells tested were resistant to lapatinib. Furthermore, the addition of cisplatin did not increase the cytotoxicity of BI6772 in cisplatin-resistant OC cells. Importantly, the combined treatment of BI6772 and MK1775 at their sublethal concentrations was more potent than single drug exposure. However, in an extended period of treatment, BI6772 alone was equally potent as the cotreatment with BI6772 and MK1775, suggesting the coinhibition may not be more efficacious than monotherapy.

Conclusions: Loss-of-function screen followed by in vitro target validation using chemical inhibitors identified clinically relevant essential targets. This approach has the potential to systematically refine therapeutic strategies in OC. These molecular target-driven strategies may provide additional therapeutic options for women whose tumors have become refractory to standard chemotherapy.

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102 - Featured Poster Session
Objective response rate is a possible surrogate endpoint for survival in patients with advanced, recurrent ovarian cancer
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Objectives: To evaluate published literature to determine if response rate could be a suitable surrogate endpoint of survival in patients with ovarian cancer.

Methods: A systematic review, consistent with PRISMA criteria, was undertaken to identify randomized controlled trials reporting overall survival (OS), progression-free survival (PFS), and objective response rate (ORR) in patients with recurrent ovarian cancer. The MEDLINE® and Embase® databases were searched (year 2000–March 23, 2015), augmented by bibliographic screening. Data from trials meeting predefined eligibility were extracted by a single reviewer and reviewed by a second. Proposed surrogate measures (independent variables) were ORR (complete response [CR] + partial response [PR]) and disease control rate (DCR; CR + PR + stable disease). True