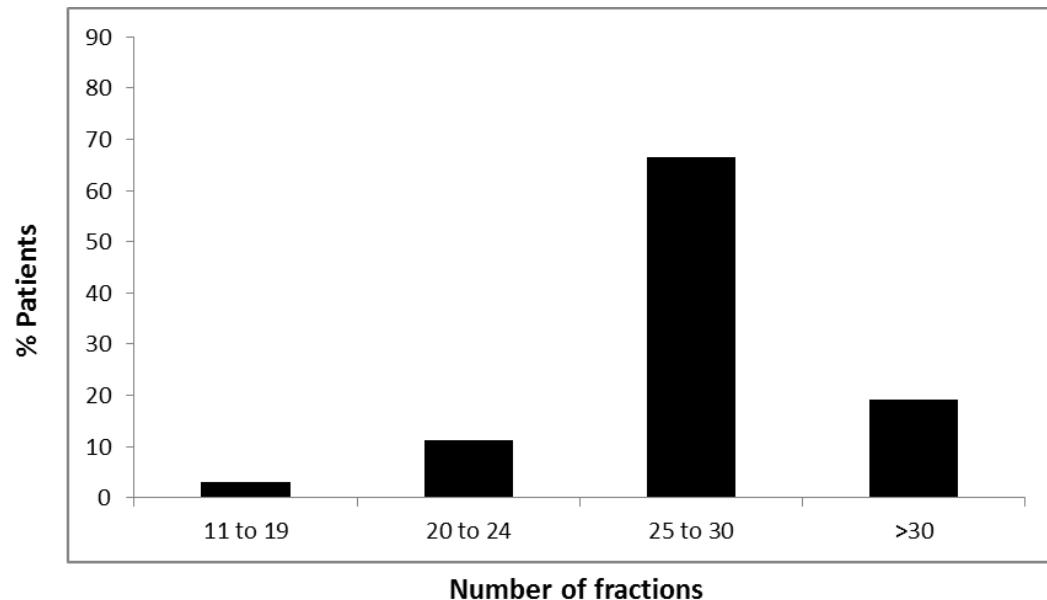


Figures

eFigure 1. Distribution of number of external beam radiation fractions.



eTable 1. Predictors of receipt of brachytherapy, HDR brachytherapy, IMRT, and chemotherapy

| Variable | Received Brachytherapy Boost Hosmer-Lemeshow P=0.96 | | | | Received HDR Brachytherapy Hosmer-Lemeshow P=0.99 | | | |
|---------------------------------|--|--------|------|--------------|--|--------|------|-------------------|
| | Adjusted OR | 95% CI | | P | Adjusted OR | 95% CI | | P |
| Patient attributes | | | | | | | | |
| Age | 0.96 | 0.95 | 0.98 | <0.001 | 1.01 | 1.00 | - | 1.03 0.04 |
| Pelvic/paraaortic node involved | 0.54 | 0.36 | 0.80 | 0.002 | 1.01 | 0.71 | 1.46 | 0.94 |
| Hydronephrosis | 0.45 | 0.31 | 0.65 | <0.001 | 0.64 | 0.44 | 0.93 | 0.02 |
| Treatment attributes | | | | | | | | |
| Year of treatment | | | 0.75 | | | | | <0.001 |
| 1999 | 0.54 | 0.08 | 3.63 | 0.53 | 0.126 | 0.013 | - | 1.27 0.08 |
| 2000 | 1.04 | 0.26 | 4.15 | 0.96 | 0.11 | 0.03 | - | 0.41 0.001 |
| 2001 | 0.86 | 0.28 | 2.60 | 0.78 | 0.17 | 0.07 | - | 0.44 0.002 |
| 2002 | 1.20 | 0.47 | 3.03 | 0.71 | 0.22 | 0.11 | - | 0.46 <0.001 |
| 2003 | 0.85 | 0.40 | 1.83 | 0.68 | 0.20 | 0.11 | - | 0.38 <0.001 |
| 2004 | 1.09 | 0.51 | 2.32 | 0.82 | 0.29 | 0.16 | - | 0.53 <0.001 |

| | | | | | | | | | |
|---|------|------|------|------------------|------|------|------|------|------------------|
| 2005 | 0.76 | 0.39 | 1.48 | 0.41 | 0.39 | 0.22 | - | 0.67 | <0.001 |
| 2006 | 2.31 | 0.91 | 5.86 | 0.08 | 0.56 | 0.32 | - | 0.98 | 0.04 |
| 2007 | 0.92 | 0.46 | 1.83 | 0.81 | 0.70 | 0.41 | - | 1.20 | 0.19 |
| 2008 | 1.21 | 0.62 | 2.35 | 0.58 | 0.88 | 0.53 | - | 1.46 | 0.63 |
| 2009 | 1.17 | 0.60 | 2.29 | 0.65 | 0.88 | 0.53 | - | 1.45 | 0.62 |
| 2010 | 0.94 | 0.51 | 1.76 | 0.85 | 1.44 | 0.87 | - | 2.39 | 0.16 |
| 2011 (referent) | - | | | | - | | | | |
| Received concurrent chemotherapy | 1.60 | 1.11 | 2.30 | 0.01 | 1.26 | 0.92 | 1.72 | 0.16 | |
| Received IMRT | 2.84 | 1.62 | 5.01 | <0.001 | 1.18 | 0.82 | 1.68 | 0.37 | |
| Received HDR brachytherapy | - | | | | - | | | | |
| Sociodemographic attributes | | | | | | | | | |
| HMO vs other insurance | 0.92 | 0.57 | 1.49 | 0.74 | 1.16 | 0.80 | 1.67 | 0.44 | |
| Employee vs other | 0.79 | 0.58 | 1.10 | 0.16 | 1.16 | 0.89 | 1.51 | 0.29 | |
| Geographic region | | | | 0.56 | | | | | 0.04 |
| Northeast | 0.70 | 0.41 | 1.20 | 0.19 | 1.21 | 0.81 | 1.81 | 0.35 | |

| | | | | | | | | | |
|---|------|------|------|------|--|------|------|------|--------------|
| Midwest | - | | | | | 1.32 | 0.98 | 1.80 | 0.07 |
| South (referent) | 0.79 | 0.53 | 1.18 | 0.25 | | - | | | |
| West | 0.79 | 0.46 | 1.37 | 0.40 | | 1.80 | 1.16 | 2.80 | 0.009 |
| Population, persons per county >1,000,000 vs ≤1,000,000 | 0.87 | 0.47 | 1.61 | 0.66 | | 0.77 | 0.55 | 1.07 | 0.11 |
| No. of radiation oncologists per HSA ≤10 vs >10 | 1.21 | 0.63 | 2.33 | 0.56 | | 1.24 | 0.94 | 1.65 | 0.13 |

Abbreviations: HDR, high-dose rate; HMO, health maintenance organization; HSA, health services area; IMRT, intensity-modulated radiation therapy; OR, odds ratio.

eTable 1, continued

| Variable | Received IMRT Hosmer-Lemeshow P=0.43 | | | | Received Chemotherapy Hosmer-Lemeshow P=0.94 | | | | |
|----------------------------------|---|--------|------|------------------|---|--------|------|------------------|-------------|
| | Adjusted OR | 95% CI | | P | Adjusted OR | 95% CI | | P | |
| Patient attributes | | | | | | | | | |
| Age | 1.01 | 0.99 | 1.03 | 0.10 | 0.97 | 0.96 | 0.99 | <0.001 | |
| Pelvic/ paraaortic node involved | 1.64 | 1.12 | 2.39 | 0.01 | 1.36 | 0.92 | 2.01 | 0.12 | |
| Hydronephrosis | 0.89 | 0.58 | 1.37 | 0.59 | 1.13 | 0.78 | 1.64 | 0.53 | |
| Treatment attributes | | | | | | | | | |
| Year of treatment | <0.001 | | | | 0.15 | | | | |
| 1999 | - | | | | | 0.15 | 0.02 | 0.88 | 0.04 |
| 2000 | - | | | | | 0.83 | 0.24 | 2.82 | 0.76 |
| 2001 | - | | | | | 0.47 | 0.19 | 1.14 | 0.10 |
| 2002 | - | | | | | 0.63 | 0.30 | 1.35 | 0.24 |
| 2003 | 0.02 | 0.003 | 0.18 | <0.001 | 0.55 | 0.29 | 1.05 | 0.07 | |
| 2004 | 0.04 | 0.008 | 0.15 | <0.001 | 0.58 | 0.31 | 1.09 | 0.09 | |

| 2005 | | 0.12 | 0.05 | 0.27 | <0.001 | 0.44 | 0.25 | 0.79 | 0.01 | |
|---|--|------|------|------|--------|------|------|------|--------|--|
| 2006 | | 0.29 | 0.15 | 0.56 | <0.001 | 0.87 | 0.45 | 1.67 | 0.68 | |
| 2007 | | 0.27 | 0.15 | 0.50 | <0.001 | 0.94 | 0.51 | 1.74 | 0.84 | |
| 2008 | | 0.40 | 0.24 | 0.66 | <0.001 | 1.10 | 0.61 | 1.99 | 0.74 | |
| 2009 | | 0.64 | 0.40 | 1.03 | 0.06 | 0.95 | 0.53 | 1.70 | 0.86 | |
| 2010 | | 0.97 | 0.63 | 1.49 | 0.88 | 0.88 | 0.51 | 1.53 | 0.66 | |
| 2011 (referent) | | - | | | | - | | | | |
| Received concurrent chemotherapy | | 2.62 | 1.58 | 4.33 | <0.001 | - | | | | |
| Received IMRT | | - | | | | 2.31 | 1.51 | 3.54 | <0.001 | |
| Received HDR | | 1.01 | 0.75 | 1.36 | 0.94 | | 1.33 | 2.62 | <0.001 | |
| Sociodemographic attributes | | | | | | | | | | |
| HMO vs other insurance | | 1.26 | 0.82 | 1.93 | 0.30 | 1.10 | 0.73 | 1.67 | 0.60 | |
| Employee vs other | | 0.90 | 0.66 | 1.23 | 0.52 | 0.94 | 0.70 | 1.27 | 0.22 | |
| Geographic region | | | | | 0.71 | | | | 0.60 | |
| Northeast | | 1.11 | 0.72 | 1.70 | 0.64 | 0.68 | 0.44 | 1.04 | 0.30 | |

| | | | | | | | | |
|---|------|------|------|-------------|------|------|------|------|
| Midwest | 0.86 | 0.60 | 1.24 | 0.42 | 0.73 | 0.52 | 1.02 | 0.11 |
| South (referent) | - | | | | - | | | |
| West | 0.89 | 0.56 | 1.41 | 0.62 | 0.98 | 0.60 | 1.59 | 0.70 |
| Population, persons per county >1,000,000 vs ≤1,000,000 | 1.47 | 1.03 | 2.10 | 0.04 | 0.86 | 0.60 | 1.25 | 0.35 |
| No. of radiation oncologists per HSA ≤10 vs >10 | 1.07 | 0.77 | 1.48 | 0.68 | 0.90 | 0.66 | 1.23 | 0.21 |

eTable 2.

| Variable | International Classification of Diseases (ICD) Diagnosis or Procedure Code | Current Procedural Terminology (CPT) Code |
|--------------------------------------|--|---|
| Cervical cancer diagnosis | 180.0, 180.1, 180.8, 180.9 | |
| History of cervical cancer diagnosis | V10.40 | |
| Metastatic cancer | 196, 196.0-3, 196.5-6, 196.8-9 | |
| Cervical surgery | 68.4, 68.41, 68.49; 68.5, 68.51, 68.59; 68.6, 68.61, 68.69; 68.7, 68.71, 68.79; 68.9 | 57530-57531, 57540, 57545, 57550, 57555-6, 58150, 58152, 58180, 58200, 58210, 58240, 58260, 58262-3, 58267, 58270, 58275, 58280, 58285, 58290-4, 58548, 58550, 58552-4, 58570-3 |
| Brachytherapy | | 76965, 77326-77328, 77761-77799, C1715, C1728, Q3001, 55920, 57155, 57156, 58346 |

| | | |
|-------------------------------------|---|---|
| External beam radiation | 92.21-92.27 | 77401-77416, 77418, 77422, 77423, 77522-77525, G0174 |
| Chemotherapy | 99.25 | J9000-J9999, C9418,C9420, C9421, C9415, C9418, Q2048, Q2049, C9280, C9414, C9425, 96400-96549, Q0083-Q0085, G0359-G0361, G9021-G9032, J8520, J8521, J8530, J8540, J8560, J8597, J8610, J8510, J8700, J8999, J8565, J8600, G0355, G0356, C9240, C9127, C9431, C9292, C9440 |
| Platinum chemotherapy | | J9060, J9045, J9062, C9418 |
| Procedure indicating hydronephrosis | 55.02, 55.03, 55.04, 58.5, 57.94, 57.95, 59.93, 59.94, 97.61, 97.62, 97.63, 97.64, 97.65, 97.69 | 50040, 50125, 50382, 50382, 50384, 50385, 50386, 50387, 50389, 50392, 50393, 50395, 50398, 50605, 50947, 50948, 51702, 51703, 51705, 51710, 52005, 52282, 52332, 52334, 59960, 59969 |