Endometrial Cancer
Chemotherapy

• Loco regional Endometrial Cancer
  – Low Risk
    • Stage IA, grade 1
  – Intermediate Risk
    • IA, IB, II
  – High Risk
    • Stage III

• Metastatic disease
Endometrial Carcinoma

• High Risk Disease
  – Stage III
  – Surgery alone Relapse rates > 50%

• GOG Protocol 122
  – Stage III-IV disease
  – Cytoreductive Surgery followed by
    • WAI
    • Or Chemotherapy
## Endometrial Carcinoma

### Chemotherapy Active Agent (>15% RR)

<table>
<thead>
<tr>
<th>Agent</th>
<th>Pts.</th>
<th>RR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doxorubicin</td>
<td>298</td>
<td>27%</td>
</tr>
<tr>
<td>Epirubicin</td>
<td>27</td>
<td>26%</td>
</tr>
<tr>
<td>Cisplatin</td>
<td>86</td>
<td>29%</td>
</tr>
<tr>
<td>Carboplatin</td>
<td>52</td>
<td>31%</td>
</tr>
<tr>
<td>Paclitaxel</td>
<td>47</td>
<td>36%</td>
</tr>
</tbody>
</table>
GOG 122
Adriamycin + Platinum better than WAI

**Protocol 122: Survival**

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Alive</th>
<th>Dead</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAI</td>
<td>82</td>
<td>120</td>
<td>202</td>
</tr>
<tr>
<td>AP</td>
<td>104</td>
<td>90</td>
<td>194</td>
</tr>
</tbody>
</table>

Proportion Surviving vs. Months on Study
Two Drugs versus Three Drugs
Three drugs better if Gross Residual Disease
GOG # 209
Three Drugs versus Two Drugs

Survival
By Randomized Treatment

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Alive</th>
<th>Dead</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAP</td>
<td>299</td>
<td>343</td>
<td>642</td>
</tr>
<tr>
<td>TC</td>
<td>295</td>
<td>368</td>
<td>663</td>
</tr>
</tbody>
</table>

Median OS (months)
- TAP: 40.3
- TC: 36.5
- HR: 1.05

Adjusted 90% upper confidence limit for the death hazard ratio (HR) of TC relative to TAP was 1.16 and excludes the inferiority region bounded at 1.2.
NSGO EC-9501/EORTC 55991
RT vs CT RT in operable endometrial cancer
Cis+ Dox, CDP, Pacli+carbo

- Stage I,
- Stage II occult
- Stage IIIA
- Stage IIIC
- R0 resection must
- Serous
- clear cell
- anaplastic
Combined Analysis
NSGO/EORTC/MANGO ILIADE

HR 0.69 (95% CI 0.46 - 1.03) p = .07

Number at risk:
- RT: 267, 251, 220, 185, 154, 111
- RT+CT: 267, 254, 223, 202, 166, 119

Graph showing probability over years for RT and RT+CT.
**Endometrial Carcinoma**

- **Progestational Agents**

<table>
<thead>
<tr>
<th>Receptor</th>
<th>Response</th>
<th>PFI</th>
<th>Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER+ PR+</td>
<td>40%</td>
<td>8.5m</td>
<td>13.5m</td>
</tr>
<tr>
<td>ER+ PR-</td>
<td>12%</td>
<td>4.5m</td>
<td>9.0m</td>
</tr>
<tr>
<td>ER- PR-</td>
<td>12%</td>
<td>2.5m</td>
<td>9.5m</td>
</tr>
<tr>
<td>Overall</td>
<td>18%</td>
<td>4.0m</td>
<td>10.5m</td>
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</table>
Endometrial Cancer
biological agents other than hormones

• **Anti-angiogenesis**
  – *Bevacizumab with chemotherapy*
  – *NRG/GOG 86P trial, MITO END 2 trial*
  – *More evidence needed*

• **Angiokinase inhibitors**
  – *Brivanib*
  – *Nintedanib*

• **Her2 directed therapies**

• **PI3K/PTEN/MTOR inhibitors**
Endometrial Carcinoma

• Treatment by Disease Characteristics
  – Locoregional Disease
    • Low risk  Surgery Alone
    • Intermediate Risk  Surgery +/- Vaginal RT
      ? Chemotherapy
    • High Risk  Surgery + Chemotherapy
      ? RT
  – Disseminated Disease  Chemotherapy