Background

- Patients with TNBC who achieve pathologic complete response (pCR) after neoadjuvant chemotherapy have sustained clinical benefit.  
- Taxane- and anthracycline-based neoadjuvant regimens produce pCR rates of ~40%; addition of platinum increases pCR rates to ~50-55%.  
- Meta-analysis of individual patient data showed a strong association of pCR after neoadjuvant chemotherapy with improved long-term EFS (HR 0.24) and OS (HR 0.16) benefit.  
- Neoadjuvant pembrolizumab + chemotherapy showed manageable safety and antitumor activity in early TNBC.
KEYNOTE-522 Study Design (NCT03036488)

Study Endpoints

- **Primary Endpoints**
  - pCR (ypT0/N0) assessed by local pathologist in ITT
  - Event-free survival (EFS) assessed by investigator in ITT

- **Secondary Endpoints**
  - pCR as per alternative definitions (ypT0/pN0 and ypT0/N0)
  - Overall survival (OS)
  - pCR, EFS and OS in the PD-L1-positive population
  - Safety in all treated patients

- **Exploratory Endpoints**
  - Residual cancer burden (RCB)
  - pCR by pathologist subgroups
  - EFS by pCR
  - pCR and EFS by TIL

In this analysis of KEYNOTE-522, we present the rates of pCR in key patient subgroups and by treatment exposure, RCB and immune-mediated AEs.

Baseline Characteristics, ITT Population

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N = 622</th>
<th>N = 421</th>
<th>N = 201</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, median (range), yrs</td>
<td>41 (22-90)</td>
<td>42 (24-79)</td>
<td></td>
</tr>
<tr>
<td>ECOG PS 1</td>
<td>73 (18.2)</td>
<td>26 (13.9)</td>
<td></td>
</tr>
<tr>
<td>PD-L1-positive</td>
<td>304 (93.3)</td>
<td>164 (81.6)</td>
<td></td>
</tr>
<tr>
<td>Carboplatin schedule</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1W</td>
<td>167 (41.6)</td>
<td>83 (41.3)</td>
<td></td>
</tr>
<tr>
<td>Q3W</td>
<td>204 (58.4)</td>
<td>118 (58.7)</td>
<td></td>
</tr>
<tr>
<td>Tumor size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1/T2</td>
<td>206 (73.8)</td>
<td>148 (73.6)</td>
<td></td>
</tr>
<tr>
<td>T3/T4</td>
<td>105 (26.2)</td>
<td>53 (26.4)</td>
<td></td>
</tr>
<tr>
<td>Nodal involvement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>208 (51.9)</td>
<td>104 (51.7)</td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>104 (48.1)</td>
<td>97 (48.3)</td>
<td></td>
</tr>
</tbody>
</table>
### Residual Cancer Burden

**Percentage of Patients**

- **RCB 0-I**:
  - Pembro + Chemo: 80.5%
  - Placebo + Chemo: 60.5%
- **RCB 0-II**:
  - Pembro + Chemo: 10.5%
  - Placebo + Chemo: 16.5%

**Data cutoff date**: April 30, 2019

Allegheny Health Network

### Immune-Mediated AEs in Combined Phases

**Immune-Mediated AEs With Incidence 1% +**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Any grade</th>
<th>Placebo Arm</th>
<th>Pembro Arm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>22.1%</td>
<td>10.5%</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0.1%</td>
<td>0.1%</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

**Immune-Mediated AEs With Incidence 1%**

- Grade 5: 0.1%

**Lead to discontinuation of any drug**

- %: 0.5%

Allegheny Health Network

### Summary

- Neoadjuvant pembro + chemo provided a larger magnitude of pCR benefit versus chemo alone in patients with stage III and/or node positive early TNBC
- The benefit of neoadjuvant pembro + chemo on pCR was also observed in patients who received less than the planned chemo (although absolute pCR rates were lower), and regardless of CPS threshold
- Neoadjuvant pembro + chemo was associated with a higher rate of RCB 0-1
- Immune-mediated adverse event rates were consistent with the known profiles of each regimen and represent no new safety concern
- Further follow-up needed to confirm EFS benefit and the long-term safety profile
- Additional biomarker analyses planned, including TILs and BRCA

Allegheny Health Network