IMpower130: efficacy and safety from a randomised phase 3 study of carboplatin and nab-paclitaxel with or without atezolizumab in 1L advanced non-squamous NSCLC

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**IMpower130 study design**

- **Co-primary endpoints:** investigator-assessed PFS and OS (ITT-WT population)
  - ITT-WT population: randomised patients excluding those with *EGFR* or *ALK* genomic alterations
- **Key secondary endpoints:** OS and PFS (ITT population and by PD-L1 expression), ORR and safety
  - ITT population could be formally tested for OS/PFS if ITT-WT OS was positive

Atezo 1200 mg IV q3w; carboplatin area under the curve 6 mg/mL/min q3w; nab-paclitaxel 100 mg/m² IV q3w.

* Crossover to receive atezo at PD was permitted only for patients enrolled to protocol versions 1–4.
Cappuzzo et al. IMpower130 – efficacy and safety
Investigator-assessed PFS (ITT-WT)

- **Atezo + CnP**
  - PFS (%): 56.1%
  - 6 months: 29.1%
- **CnP**
  - PFS (%): 42.5%
  - 12 months: 14.1%

**Median follow-up:** ~19 mo

**HR:** 0.64
(95% CI: 0.54, 0.77)
P < 0.0001

**Number at risk**

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<th>Atezo + CnP</th>
<th>CnP</th>
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Cappuzzo et al. IMpower130 – efficacy and safety

Presented on: ESMO, October 19-23, 2018, Munich, Germany
OS (ITT-WT)

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<th>1 year</th>
<th>2 years</th>
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<tr>
<td>Atezo + CnP</td>
<td>63.1%</td>
<td>39.6%</td>
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<tr>
<td>CnP</td>
<td>55.5%</td>
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HR: 0.79
(95% CI: 0.64, 0.98)
P = 0.033

Median: 13.9 mo
(95% CI: 12.0, 18.7)

Median: 18.6 mo
(95% CI: 16.0, 21.2)

Number at risk
Atezo + CnP: 451, 435, 422, 400, 384, 365, 351, 335, 315, 305, 294, 284, 268, 253, 217, 194, 167, 147, 129, 103, 88, 75, 65, 58, 50, 49, 40, 29, 19, 12, 10, 6, 4, 2, 1
CnP: 228, 218, 206, 190, 176, 167, 161, 154, 147, 136, 122, 124, 119, 109, 96, 90, 75, 65, 50, 49, 40, 39, 31, 24, 17, 13, 9, 8, 3, 1

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Presented on: ESMO, October 19-23, 2018, Munich, Germany
Secondary endpoints:
Investigator-assessed PFS and OS (ITT)

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Presented on: ESMO, October 19-23, 2018, Munich, Germany
PFS by baseline PD-L1 status (ITT-WT)

Cappuzzo et al. IMpower130 – efficacy and safety
OS by baseline PD-L1 status (ITT-WT)

Cappuzzo et al. IMpower130 – efficacy and safety

Presented on: ESMO, October 19-23, 2018, Munich, Germany
Summary and conclusions

- IMpower130 met its co-primary PFS and OS endpoints and demonstrated a statistically significant and clinically meaningful benefit of 4.7 months' OS (and 1.5 months' PFS) for atezolizumab (atezo) plus chemotherapy in the ITT-WT population, compared with chemotherapy alone.
  - OS and PFS benefits were observed across all PD-L1 subgroups.
  - Outcomes in patients with EGFR or ALK genomic alterations suggest treatment benefit was mostly driven by the ITT-WT population.
- Atezo plus chemotherapy had a safety profile consistent with AEs associated with single-agent therapy; no new safety signals were identified.
- The IMpower130 results support atezolizumab plus chemotherapy as a treatment option for patients with advanced non-squamous NSCLC, regardless of PD-L1 status.

Cappuzzo et al. IMpower130 – efficacy and safety
IMpower132: efficacy of atezolizumab + carboplatin/cisplatin + pemetrexed as 1L treatment in key subgroups with stage IV non-squamous NSCLC

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Presented on: ESMO, October 19-23, 2018, Munich, Germany
IMpower132 study design

Chemotherapy-naive patients with Stage IV non-squamous NSCLC without EGFR or ALK generic alteration

Stratification factors:
- Sex
- Smoking status
- ECOG PS
- Chemotherapy regimen

N = 578

Co-primary endpoints: INV-assessed PFS and OS
Secondary endpoints: INV-assessed ORR and DOR, PRO and safety measures
Exploratory analyses: clinical and biomarker subgroups analyses

Induction therapy

Arm APPa
Atezolizumab + carboplatin or cisplatin + pemetrexed
4 or 6 cycles

Arm PPb
Carboplatin or cisplatin + pemetrexed
4 or 6 cycles

Maintenance therapy

Atezolizumaba + pemetrexeda

Pemetrexeda

Maintenance Treatment until PD by RECIST v1.1 or loss of clinical benefit

APP, atezolizumab + carboplatin/cisplatin + pemetrexed; PP, carboplatin/cisplatin + pemetrexed.
a Atezolizumab: 1200 mg IV q3w; carboplatin: AUC 6 mg/mL/min IV q3w; cisplatin: 75 mg/m2 IV q3w; pemetrexed: 500 mg/m2 IV q3w.
b Biomarker-evaluable tissue not mandatory for enrolment and was available from 60% of patients. NCT02657434.
Data cutoff: May 22, 2018.
Barlesi et al. IMpower132 – efficacy in subgroups

Presented on: ESMO, October 19-23, 2018, Munich, Germany
PFS in the ITT population

HR, 0.60 (95% CI: 0.49, 0.72)
\[ P < 0.0001 \]
Minimum follow-up: 11.7 mo
Median follow-up: 14.8 mo

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<td>12-mo PFS, %</td>
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<td>ORR, %</td>
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<td>Median DOR, mo</td>
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No. at Risk

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APP, atezolizumab + carboplatin/cisplatin + pemetrexed; PP, carboplatin/cisplatin + pemetrexed.
Data cutoff: May 22, 2018.
Barlesi et al. Impower132 – efficacy in subgroups

Presented on: ESMO, October 19-23, 2018, Munich, Germany
Interim OS analysis in the ITT population

HR, 0.81 (95% CI: 0.64, 1.03)
$P = 0.0797$
Minimum follow-up: 11.7 mo
Median follow-up: 14.8 mo

APP, atezolizumab + carboplatin/cisplatin + pemetrexed; PP, carboplatin/cisplatin + pemetrexed.
Data cutoff: May 22, 2018. Frequency of OS events: 44% and 49% in arms APP and PP respectively.
Barlesi et al. Impower132 – efficacy in subgroups

Presented on: ESMO, October 19-23, 2018, Munich, Germany
Conclusions

• The addition of atezolizumab to carboplatin/cisplatin and pemetrexed resulted in statistical and clinically relevant improvement in PFS in the ITT population

• PFS improvements were observed in key clinical subgroups, including patients who were from Asia, never smokers, older and without liver metastases at baseline

• Although the efficacy boundary has not been crossed for OS, numerical improvements were observed in the ITT population (mOS improvement of 4.5 months) and in key subgroups

• Further analyses may provide insights into the causes underlying these results to improve knowledge and future treatment options for patients