Atezolizumab 1200 / Carboplatin 6 / Nab-Paclitaxel 100, Non-Small Cell Lung Cancer

Protocol-ID: 1238 V1.2 (Complete), ATEZ1200/CRBP6/NPAC100, NSCLC

Indication(s)

- Lung Carcinoma, Non-Small Cell (non-squamous); ICD-10 C34.-

Protocol classification

- Classification: alternative
- Intensity: Standard dose
- Therapy mode: First line
- Therapy intention: palliative

Cycles

Cycle length 21 days, recommended cycles: 6

Protocol sequences

- IMpower130: ATEZ1200/CRBP6/NPAC100, NSCLC (PID1238) -|- ATEZ1200/CRBP6/NPAC100 - ATEZ1200 maint. (PID1272)

Risks

- Emetogenicity (MASCC/ESMO): high (>90%) Carboplatinkombination
- Emetogenicity (MASCC/ESMO): low (10-30%) Nab-paclitaxel
- Neutropenia: very high (>41%) °3-4: 44%
- Thrombocytopenia below 50 000/µl: very high (>41%) °3-4: 45%
- Anemia Hb below 8g/dl: high (16-30%) °3-4: 29%
- Diarrhea: CTC AE °3-4: 5%
- Fatigue: CTC AE °3-4: 6%
- Nausea: CTC AE °3-4: 3%

Therapy

Hydration: Balanced Crystalloid Solution **HYD**

Access: peripheral venous

Hydration before, during, or after antitumor therapy

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	**Balanced Crystalloid Solution**	500 ml		i.v.	60 min	60 min before Atezolizumab (d1)
8,15	**Balanced Crystalloid Solution**	500 ml		i.v.	60 min	60 min before Nab-paclitaxel (d8,15)

Antiemesis: Emetogenicity high (CRBP), FOSAP, GRAN i.v., DEXA i.v. **AE**

Access: peripheral venous

DGHO 2016, DKG 2016, MASCC/ESMO 2016, carboplatin-containing combination therapies

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	**Fosaprepitant**	150 mg	NaCl 0.9% 150 ml	i.v.	20 min	30 min before Atezolizumab (d1)
1	**Dexamethasone**	12 mg	NaCl 0.9% 50 ml	i.v.	5 min	30 min before Atezolizumab (d1)
1	**Granisetron**	1 mg	NaCl 0.9% 50 ml	i.v.	5 min	15 min before Atezolizumab (d1)
8,15	**Granisetron**	1 mg	NaCl 0.9% 50 ml	i.v.	5 min	15 min before Nab-paclitaxel (d8,15)

Medical tumor therapy: ATEZ1200/CRBP6/NPAC100 **CTX**

Access: peripheral venous

Atezolizumab, carboplatin, and nab-paclitaxel in non-small cell, non-plate epithelial lung cancer

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	**Atezolizumab**	1200 mg	NaCl 0.9% 250 ml	i.v.	60 min	Sequence
If the first infusion was well tolerated, the second infusion can be given over 30 minutes.						
1	**Carboplatin**	6 AUC	Dextrose 5% 250 ml	i.v.	30 min	Sequence
1,8,15	**Nab-paclitaxel**	100 mg/m² BSA	none	i.v.	30 min	Sequence

Concomitant therapy supplements

Granisetron in place of Dexamethasone for antiemesis on days 8 and 15 to avoid immunosuppression and the risk of infection from Dexamethasone exposure.

Notes

4 or 6 induction cycles were administered, after which patients received atezolizumab as maintenance therapy. Therapy is continued until reduction of clinical benefit or the occurrence of undesirable side effects.

Cycle diagram

Hydration: Balanced Crystalloid Solution

	Week 1 / d							Week 2 / d							Week 3 / d						
Substance	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Balanced Crystalloid Solution (i.v.)	■																				
Balanced Crystalloid Solution (i.v.)								■							■						

Antiemesis: Emetogenicity high (CRBP), FOSAP, GRAN i.v., DEXA i.v.

	Week 1 / d							Week 2 / d							Week 3 / d						
Substance	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Fosaprepitant (i.v.)	■																				
Dexamethasone (i.v.)	■																				
Granisetron (i.v.)	■																				
Granisetron (i.v.)								■							■						

Medical tumor therapy: ATEZ1200/CRBP6/NPAC100

	Week 1 / d							Week 2 / d							Week 3 / d						
Substance	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Atezolizumab (i.v.)	■																				
Carboplatin (i.v.)	■																				
Nab-paclitaxel (i.v.)	■							■							■						

Cycles

Cycle length 21 days, recommended cycles: 6

Controls:

- Blood count: on day 1 and subsequently weekly
- Echocardiography, ECG Nab-paclitaxel: monitoring for cardiac events, cases of left ventricular dysfunction and congestive heart failure occurred.
- Day 1: TSH, fT3, fT4 Monitor for changes in thyroid function and signs of thyroid disease. Monitor for immune-mediated endocrinopathies at baseline and during therapy.
- Day 1: GOT, GPT, GGT, Bilirubin, AP, Cholinesterase Nab-paclitaxel: Liver monitoring before and during therapy, dose adjustment if necessary. Impairment of liver function possible with carboplatin therapy.
- Day 1: Glomerular Filtration Rate (GFR) monitor immune-mediated nephritis, Carboplatin dose calculation according to AUC and Calvert's formula; in normal renal function, expect a maximum GFR of 125 ml/min to avoid overdoses.

Original indication

non-small cell lung cancer, adeno-, stage IV, first line, ECOG 0-1

Original author

West H (2019)

Origin

Thoracic Oncology Program, Swedish Cancer Institute, Seattle, USA, IMpower130

References

- West H, Atezolizumab in combination with carboplatin plus nab-paclitaxel chemotherapy compared with chemotherapy alone as first-line treatment for metastatic non-squamous non-small-cell lung cancer (IMpower130): a multicentre, randomised, open-label, phase 3 trial., Lancet Oncol 2019 May 20; [PMID]
- Arbour KC, Impact of Baseline Steroids on Efficacy of Programmed Cell Death-1 and Programmed Death-Ligand 1 Blockade in Patients With Non-Small-Cell Lung Cancer., J Clin Oncol 2018 10 01;36(28):2872-2878 [PMID]

Recommendations

- 01/2023: European Society for Medical Oncology
- 02/2024: National Comprehensive Cancer Network

Status

Valid since 2024-02-15, Version 1.2, last updated 2024-02-15

Last modification: V1.2: Addition of the corticosteroid under immunotherapy V1.1: Cato test done. Removal of corticosteroid according to Della Corte 2019 / Arbour 2018, replacement of Granisetron with Palonosetron during immunotherapy. V1.0: Cato test done. V0.1: Runtimes according to summary of product characteristics.

Important notice