Docetaxel 75 / Cisplatin 75, Non-Small Cell Lung Carcinoma

Protocol-ID: 144 V1.1 (Standard), DOCE75/CISP75, NSCLC

Indication(s)

- Lung Carcinoma, Non-Small Cell; ICD-10 C34.-

Protocol classification

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

Cycles

Cycle length 21 days, recommended cycles: 6

Risks

- Emetogenicity (MASCC/ESMO): high (>90%)
- Neutropenia: very high (>41%)
- Febrile Neutropenia: intermediate (10-20%)
- Thrombocytopenia below 50 000/µl: low (<10%)
- Anemia Hb below 8g/dl: moderate (6-15%)
- Cardiotoxicity: low (<10%)

Therapy

Allergy prophylaxis: Docetaxel allergy prophylaxis, Dexamethasone **AP**

Access: - none -

Docetaxel SmPC

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
-1	**Dexamethasone**	8 mg		p.o.		1-0-1-0

From day before therapy with Docetaxel, antihistamine therapy not provided for in summary of product characteristics.

Hydration: Hydration to Cisplatin (from 50 mg/m²) **HYD**

Access: peripheral venous

Modified from Crona DJ et al 2017 and Hamroun A et al 2019.

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	**Balanced Crystalloid Solution**	3000 ml		i.v.	6 h	60 min before Docetaxel (d1)
Parallel to cisplatin and beyond. 20 mmol KCl and 4 mmol (10 ml) MgSO4 added to 1000 ml balanced crystalloid solution						
1	**Potassium chloride**	60 mmol	none	i.v.	6 h	60 min before Docetaxel (d1)
1	**Magnesium sulfate**	12 mmol	none	i.v.	6 h	60 min before Docetaxel (d1)

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

Access: peripheral venous

DGHO 2016, DKG 2016, MASCC/ESMO 2016

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	**Fosaprepitant**	150 mg	NaCl 0.9% 150 ml	i.v.	20 min	30 min before Docetaxel (d1)
1	**Dexamethasone**	12 mg	NaCl 0.9% 50 ml	i.v.	5 min	30 min before Docetaxel (d1)
1	**Granisetron**	1 mg	NaCl 0.9% 50 ml	i.v.	5 min	15 min before Docetaxel (d1)
or other 5-HT3 receptor antagonist						
2-4	**Dexamethasone**	8 mg		p.o.		1-0-0-0
alternatively 4 mg 1-0-1						

Antineoplastic therapy: CISP75/DOCE75 **CTX**

Access: peripheral venous

Palliative therapy in advanced NSCLC

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1	**Docetaxel**	75 mg/m² BSA	NaCl 0.9% 250 ml	i.v.	60 min	Sequence
Give docetaxel concurrently with hydration before cisplatin.						
1	**Cisplatin**	75 mg/m² BSA	NaCl 0.9% 500 ml	i.v.	60 min	Sequence

Hematopoietic growth factors: FN risk 10-20%, G-CSF long-acting, pegylated **HW**

Access: - none -

Risk of febrile neutropenia (FN) 10-20% and 1 risk factor: age > 65 y, laboratory parameters (anemia, lymphocytopenia < 700/µl, hypalbuminemia, hyperbilirubinemia) previous chemotherapy, comorbidities, low performance status, advanced symptomatic tumor disease (DKG 2016)

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
2	**Pegfilgrastim**	6 mg		subc	Bolus	24 h after Cisplatin (d1)
Use at risk: FN 10-20% and 1 risk factor, other long-acting G-CSF possible.						

Supportive therapy: Magnesium p.o. **SUP**

Access: - none -

For magnesium substitution in cisplatin therapies from 50mg/m².

Day	Substance	Dosage	Solution	Appl.	Inf. time	Procedure
1-3	**Magnesium**	150 mg		p.o.		1-0-1-0
For Cisplatin-containing therapies, 150 mg Magnesium corresponds to about 6.2 mmol.						

Concomitant therapy supplements

For highly emetogenic chemotherapy, additional olanzapine is recommended in the acute (day 1) and delayed phases (days 2-4) at a dosing of 5-10 mg per day (NCCN, ESMO, ASCO, Onkopedia; as of 6/24).
Dexamethasone for allergy prophylaxis is covered by dexamethasone for antiemesis on days 1 and 2.

Notes

in case of response 4-6 cycles, maximum 6

Controls:

- Blood count: 1x weekly
- Audiogram Ototoxicity of cisplatin
- Echocardiography, ECG Evaluation of cardiac pump function before cisplatin therapy.
- Day 1: Creatinine, glomerular filtration rate (GFR) Exclusion of renal insufficiency before cisplatin.

- Day 1: GOT, GPT, GGT, Bilirubin, AP, Cholinesterase Liver function prior to Docetaxel and Cisplatin administration, ongoing liver monitoring during therapy.
- Day 1,2: Na^{+}, K^{+}, Ca^{2+}, Mg^{2+} Exclusion of electrolyte imbalance during cisplatin and infusion therapy.
- Day 1-2: Weight

Original author

Joan H. Schiller (2002)

Origin

Eastern Cooperative Oncology Group

References

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- Millward MJ, Phase I trial of docetaxel and cisplatin in previously untreated patients with advanced non-small-cell lung cancer. J Clin Oncol 1997 Feb;15(2):750-8. doi: 10.1200/JCO.1997.15.2.750. PMID: 9053501. [PMID]
- Fossella F, Randomized, multinational, phase III study of docetaxel plus platinum combinations versus vinorelbine plus cisplatin for advanced non-small-cell lung cancer: the TAX 326 Study Group J Clin Oncol 2003 Aug 15;21(16):3016-24. doi: 10.1200/JCO.2003.12.046. PMID: 12837811. [PMID]
- Novello S, Metastatic non-small-cell lung cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol 2016 Sep;27(suppl 5):v1-v27. doi: 10.1093/annonc/mdw326. PMID: 27664245. [PMID]

Recommendations

- 09/2021: European Society for Medical Oncology
- 02/2023: National Comprehensive Cancer Network

Important notice