NON–SMALL CELL LUNG CANCER

ADJUVANT THERAPY

CISPLATIN – VINORELBINE

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*Administer with adequate hydration; **The protocol originally called for vinorelbine 30 mg/m², but was reduced due to hematologic toxicity in August 1995.

NOTE: Colony-stimulating factors were administered to 15% of patients.

Repeat cycle (cisplatin) every 28 days for 4 total cycles.

NON–SMALL CELL LUNG CANCER

LOCALLY ADVANCED DISEASE

CARBOPLATIN – PACLITAXEL (WEEKLY) WITH RADIATION (LAMP)

Paclitaxel† 45 mg/m² IV* Day 1, 8, 15, 22, 29, 36, 42 and 49

Followed by

Carboplatin AUC 2** IV*** Day 1, 8, 15, 22, 29, 36, 42 and 49

Radiation Thoracic radiation therapy administered concurrently with weekly chemotherapy. Radiation consists of 1.8 Gy daily, five times per week to 45 Gy with a boost to total radiation dose 63 Gy over 7 weeks (34 fractions).

‡Routine premedication administered; *Administer over 1 hour; **AUC calculated using the Calvert Formula (and Cockroft and Gault for creatinine clearance); ***Administer over 30 minutes.

THEN, following a 3–4 week break

CONSOLIDATION

Paclitaxel† 200 mg/m² IV Day 1

Followed by

Carboplatin AUC 6** IV*** Day 1

‡Routine premedication administered; *Administer over 3 hours; **AUC administered using the Calvert Formula (and Cockroft and Gault for CrCL); ***Administer over 30 minutes.

Repeat consolidation cycle every 21 days for a total of 2 cycles.

NON–SMALL CELL LUNG CANCER

UNRESECTABLE/ADVANCED DISEASE

**CARBOPLATIN – PACLITAXEL**

Paclitaxel‡ 200\(^1\)–225\(^2\) mg/m\(^2\)  IV  * Day 1

Followed by

Carboplatin  AUC 6**  IV  Day 1

‡Routine premedication administered; *Administer over 3 hours; **AUC calculated using the Calvert Formula (and Cockroft and Gault for CrCl).

Repeat cycle every 21 days.

References:  

**CARBOPLATIN – PACLITAXEL – BEVACIZUMAB**

Paclitaxel‡ 200 mg/m\(^2\)  IV  * Day 1

Followed by

Carboplatin  AUC 6**  IV  Day 1

Bevacizumab  15 mg/kg  IV***  Day 1

‡Routine premedication administered; *Administer over 3 hours; **AUC calculated using the Calvert Formula (and Cockroft and Gault for CrCl); ***Initial dose to be administered over 90 minutes. If the first infusion is well tolerated, the second infusion can be administered over 60 minutes. If that is well tolerated all subsequent infusions may be delivered over 30 minutes; If the patient experiences infusion associated adverse events while the bevacizumab is being administered, the patient may receive premedication on the next cycle.

NOTE: Continue bevacizumab monotherapy after 6 cycles of chemotherapy pending disease response. Use this regimen for non–squamous non–small cell lung cancer only. Very strict exclusion criteria including brain metastases, gross hemoptysis, concurrent anticoagulation, or regular daily aspirin use. See protocol for complete details.

Repeat cycle every 21 days to a maximum of 6 cycles.

Reference:  

**CARBOPLATIN – PACLITAXEL (WEEKLY)**

Paclitaxel‡ 100 mg/m\(^2\)  IV  Days 1, 8 and 15

Carboplatin  AUC 6  IV  Day 1

‡Routine premedication administered.

NOTE: Patients with a CR, PR or SD were randomized to maintenance therapy with paclitaxel 70 mg/m\(^2\) IV weekly for 3 out of every 4 weeks.

Repeat cycle every 28 days for 4 cycles.

Reference:  
**CARBOPLATIN – PACLITAXEL – GEMCITABINE**

Paclitaxel‡  200 mg/m²   IV  *  Day 1

Followed by

Carboplatin  AUC 6   IV  Day 1

Followed by

Gemcitabine  1000 mg/m²   IV**  Days 1 and 8

‡Routine premedication administered; *Administer over 3 hours; **Administer over 30 – 60 minutes.

NOTE:  Prophylactic growth factor was not permitted.  Growth factor support should be used in accordance with the current ASCO guidelines.

DOSE MODIFICATIONS:  Treatment was interrupted for the following – when the CrCL fell below 60 mL/minute, allergic reactions, and neurologic toxicity greater than grade 2 and grade 4 non–hematologic toxicity (excluding alopecia).

Repeat cycle every 21 days for a minimum of 6 cycles.


**CISPLATIN – DOCETAXEL**

Docetaxel‡  60 – 75 mg/m²   IV  *  Day 1

Followed by

Cisplatin  75 – 80 mg/m² IV**  Day 1

‡Routine premedication administered; *Administer over 1 hour; **Administer over 2 hours with adequate pre– and post–hydration.

Repeat cycle every 21 – 28 days.


**CISPLATIN – GEMCITABINE – BEVACIZUMAB**

Cisplatin  80 mg/m²   IV  Day 1

Gemcitabine  1250 mg/m²   IV  Days 1 and 8

Bevacizumab  7.5 mg/kg   IV  Days 1, 8, and 15

Repeat cycle every 21 days.

**CISPLATIN – PACLITAXEL**

Paclitaxel‡  135 mg/m²  CIVI  Day 1

*Followed by*

Cisplatin  75 mg/m²  IV  Day 2

‡Routine premedication administered; *Administer as a continuous infusion over 24 hours; **Administer over 60 minutes with adequate pre- and post-hydration.

Repeat cycle every 21 days.


**DOCETAXEL – ELDERLY (≥ 70 YEARS)**

Docetaxel‡  60 mg/m²  IV  Day 1

‡Routine premedication administered; *Administer over 1 hour.

Repeat cycle every 21 days for 4 cycles.


**DOCETAXEL**

Docetaxel‡  75 mg/m²  IV  Day 1

‡Routine premedication administered; *Administer over 1 hour.

Repeat cycle every 21 days until disease progression/unacceptable toxicity.

NOTE: Original protocol in second-line therapy excluded patients with brain metastases or who received prior paclitaxel.


**DOCETAXEL (WEEKLY)**

Docetaxel‡  35 mg/m²/week  IV  Days 1, 8 and 15

‡Routine premedication administered; *Administer over 1 hour.

Repeat cycle every 28 days for a maximum of 8 cycles.

**DOCETAXEL – VINORELBINE**

Vinorelbine  45 mg/m²  IV*  Day 1

Followed immediately by

Docetaxel‡  60 mg/m²  IV**  Day 1
Filgrastim  5 micrograms/kg/day  SQ  Day 3 until ANC recovery

‡Routine premedication administered; *Administer over 6 – 10 minutes; **Administer over 1 hour.

Repeat cycle every 14 days.

NOTE: Antibacterial prophylaxis administered.


**EP (ETOPOSIDE – CISPLATIN)**

Etoposide  100 mg/m²/day  IV*  Days 1 – 3
Cisplatin  120 mg/m²  IV**  Day 1

*Administer over 1 hour; **Administer over 15 – 20 minutes with routine pre- and post-hydration.

Repeat cycle every 21 – 28 days. Responding patients were continued until disease progression or no further response during two successive cycles. Stable disease discontinued therapy after 3 cycles.


**ERLOTINIB**

Erlotinib  150 mg/day  PO*  Daily

*Take 1 hour before or 2 hours after ingestion of food.

NOTE: Available as 25 mg, 100 mg, and 150 mg tablets.


**GEFITINIB**

Gefitinib  500 mg  PO  Daily

NOTE: Use this schedule and dose for bronchioloalveolar carcinoma (BAC) ONLY.


**GEMCITABINE**

Gemcitabine  1200 mg/m²  IV  Days 1 and 8

Repeat cycle every 21 days for a maximum of 6 cycles.

**GEMCITABINE – CARBOPLATIN**

Gemcitabine 1200 mg/m² IV* Days 1 and 8  
*Administer over 30 minutes; **AUC calculated using Calvert formula.

Followed by

Carboplatin AUC 5** IV* Day 1

NOTE: All patients received prophylactic trimethoprim from days 8 to day 21. Doses of carboplatin and gemcitabine were reduced by 50% if CrCL was 40 – 60 mL/minute.

Repeat cycle every 21 days for 4 cycles.


**GEMCITABINE – CISPLATIN**

Gemcitabine 1000 mg/m² IV* Days 1 and 8  
Cisplatin 60 mg/m² IV** Day 1  
*Administer over 30 minutes; **Administer over 1 hour with routine pre- and post-hydration.

Repeat cycle every 21 days for up to 6 cycles, or until disease progression or unacceptable toxicity.


**GEMCITABINE – CISPLATIN**

Gemcitabine 1000 mg/m² IV* Days 1, 8 and 15  
Cisplatin 100 mg/m² IV** Day 1 or 2  
*Administered over 30 minutes; **Administer over 30 – 120 minutes with routine pre- and post-hydration.

NOTE: Doses of cisplatin and gemcitabine were reduced by 50% if CrCL was 40 – 60 mL/minute.

Repeat cycle every 28 days.


**PACLITAXEL**

Paclitaxel‡ 200 mg/m² IV* Day 1  
‡Routine premedication administered; *Administer over 3 hours.

Repeat cycle every 21 days.

**PACLITAXEL – GEMCITABINE**

Paclitaxel‡  200 mg/m²  IV  Day 1

followed by

Gemcitabine  1000 mg/m²  IV**  Days 1 and 8

‡Routine premedication administered; *Administer over 3 hours; **Administer over 30 minutes.

Repeat cycle every 21 days for a maximum of 6 cycles.


**PEMETREXED**

Pemetrexed  500 mg/m²  IV  Day 1

*Administer over 10 minutes.

NOTE: Premedication with oral dexamethasone 4 mg twice daily for 3 days, beginning the day prior to the dose of pemetrexed, has significantly reduced the incidence and severity of rash. Folic acid (dose 350 micrograms to 1 mg PO daily) and vitamin B₁₂ (1000 to 1500 micrograms IM every 9 weeks) supplementation should be prescribed 1 – 2 weeks before starting the first dose of pemetrexed.

Repeat cycle every 21 days until disease progression.


**VINORELBINE**

Vinorelbine  30 mg/m²  IV  Days 1 and 8

Repeat cycle every 21 days to a maximum of 6 cycles.


**VINORELBINE – CISPLATIN**

Vinorelbine  25 mg/m²  IV  Days 1, 8, 15 and 22

Cisplatin  100 mg/m²  IV*  Day 1

*Administer over 1 hour with adequate pre- and post-hydration.

Repeat cycle every 28 days to a maximum of 10 cycles (unless toxicity/progressive disease).

SMALL CELL LUNG CANCER

**ACE (also known as CDE) (DOXORUBICIN – CYCLOPHOSPHAMIDE – ETOPOSIDE)**

- Doxorubicin 45 mg/m² IVP* Day 1
- Cyclophosphamide 1000 mg/m² IVP* Day 1
- Etoposide 100 mg/m² IV** Days 1, 3 and 5

*Administer as rapid IV pushes into fast running IV fluids; **Administer over 30 minutes.

Repeat cycle every 21 days.


**CAV (CYCLOPHOSPHAMIDE – DOXORUBICIN – VINCristINE)**

- Cyclophosphamide 800 mg/m² IV Day 1
- Doxorubicin 50 mg/m² IV Day 1
- Vincristine* 1.4 mg/m² IV Day 1

*Maximum dose 2 mg.

Repeat cycle every 21 – 28 days.


CAV

- Cyclophosphamide 1000 mg/m² IV Day 1
- Doxorubicin 50 mg/m² IV Day 1
- Vincristine 2 mg IV Day 1

*Alternating every 21 days with the regimen below (for a total of 6 courses – 3 with each regimen)*

EP

- Etoposide 100 mg/m²/day IV Days 1 – 3
- Cisplatin 25 mg/m²/day IV Days 1 – 3

Radiation

Patients with limited stage disease treated with thoracic irradiation, administer during cycle 1 of "EP". The radiation dose is 40 Gy in 15 fractions over 3 week’s concurrent starting with the first cycle of EP. Third cycle of chemotherapy (CAV #2) delayed by 1 week to avoid radiation/doxorubicin interaction.

**ETOPOSIDE (ORAL)**

Etoposide 50 mg/m²/day PO Days 1 – 21

NOTE: Available as 50 mg capsules. Take entire daily dose each morning before eating.

Repeat cycle every 28 days (or upon count recovery).


**ETOPOSIDE – CARBOPLATIN**

Etoposide 100 mg/m²/day IV* Days 1 – 3
Carboplatin 300 mg/m² IV Day 1

*Administer over 2 hours.

Repeat cycle every 21 days to a maximum of 6 cycles. Concurrent radiation can be administered if limited stage disease. Administer 35 Gy in daily fractions of 2 Gy/day 5 days per week and given concurrently with the 4th cycle of chemotherapy followed by a 10 Gy boost.


**EP (ETOPOSIDE – CISPLATIN) ± THORACIC RADIATION**

Etoposide 100 – 120 mg/m²/day IV* Days 1 – 3
Cisplatin 60 – 80 mg/m² IV** Day 1

*Administer over 1 – 2 hours; **Administer over 30 minutes to 2 hours with adequate pre- and post-hydration.

Radiation¹

Began on Day 2 of first cycle of chemotherapy. Administered Twice daily (1.5 Gy per fraction, with 4 hours or more between fractions) and directed to the primary tumor for a total dose of 45 Gy in 3 weeks. The initial field included the primary disease site with a 1.5-cm margin around the mass, the ipsilateral hilum, the entire width of the mediastinum, and the supraclavicular lymph nodes (only if there was tumor involvement). Radiation was suspended if a patient experienced grade 4 hematologic toxicities, radiation pneumonitis or fever, a decrease in arterial oxygen pressure exceeding 10 mmHg, or if a patient had difficulty swallowing a liquid diet. The maximum spinal cord dose was limited to 30 Gy.

Repeat cycle every 21 – 28 days for 4 cycles.

**GEMCITABINE – DOCETAXEL**

Gemcitabine 800 mg/m² IV * Days 1, 8 and 15

Followed by

Docetaxel‡ 30 mg/m² IV** Days 1, 8 and 15

‡Routine premedication administered; *Administer over 30 minutes; **Administer over 30 minutes.

Repeat cycle every 28 days for 6 cycles.

NOTE: Patients with brain metastases at the time of initial staging were allowed to receive whole brain radiation concurrent with initiation of chemotherapy.


**GEMCITABINE – IRINOTECAN**

Gemcitabine 1000 mg/m² IV * Days 1 and 8

Immediately followed by

Irinotecan 100 mg/m² IV** Days 1 and 8

*Administered over 30 minutes; **Administer over 90 minutes.

NOTE: Dose of irinotecan could be increased to 115 mg/m² in subsequent cycles if no hematologic toxicity greater than grade 3 or non-hematologic toxicity greater than grade 2 (except nausea/vomiting, alopecia, anorexia, or fever) was observed during the first cycle.

Repeat cycle every 21 days for at least 4 cycles beyond achievement of response or stable disease, or until documentation of disease progression or unacceptable toxicity.


**IFOSFAMIDE – CARBOPLATIN – ETOPOSIDE**

Ifosfamide 3750 mg/m² CIVI* Day 1

Mesna 5065 mg/m² CIVI** Day 1

Carboplatin 300 mg/m² IV*** Day 1

Etoposide 50 mg/day PO Days 1 – 14

*Administer as a continuous infusion over 24 hours; **Start mesna infusion 15 minutes prior to starting ifosfamide infusion and continue for 12 hours post completion of ifosfamide infusion; ***Administer over 15 minutes.

Consider dose escalation of ifosfamide to 5000 mg/m² and etoposide to 50 mg alternating with 100 mg per day on cycle 2 if there are no significant complications.

Repeat cycle every 28 days for a maximum of 6 – 8 cycles.

IRINOTECAN – CISPLATIN

Irinotecan  65 mg/m²  IV  Days 1 and 8
Cisplatin   30 mg/m²  IV*  Days 1 and 8

*Administer with adequate pre and post-hydration.

Repeat cycle every 21 days for a minimum of 4 cycles.


TOPOTECAN

Topotecan  1.5 mg/m²/day  IV*  Days 1 – 5

*Administer over 30 minutes.

Repeat cycle every 21 days until disease progression/unacceptable toxicity or maximal response. Consider dose escalation to 2 mg/m²/day in the absence of Grade 2 or higher toxicity after cycle 1.

MESOTHELIOMA

PEMETREXED – CISPLATIN
Pemetrexed# 500 mg/m² IV* Day 1

Followed 30 minutes later by

Cisplatin 75 mg/m² IV** Day 1

#Premedication with oral dexamethasone 4 mg twice daily for 3 days, beginning the day prior to the dose of pemetrexed, has been used to significantly reduce the incidence and severity of rash. Folic acid (dose 350 micrograms to 1 mg daily) and vitamin B₁₂ (1000 micrograms IM) supplementation should be prescribed to begin 1 – 3 weeks before starting the first dose of chemotherapy. Vitamin B₁₂ should be re-dosed every 9 weeks while receiving therapy; *Administer over 10 minutes; **Administer over 2 hours with adequate pre- and post-hydration.

Repeat cycle every 21 days.