BCCA Protocol Summary For First-Line Treatment of Advanced Non-Small Cell Lung Cancer (NSCLC) with CIpplatin and DOCEtaxel

**Protocol Code:** LUAVDC  
**Tumour Group:** Lung  
**Contact Physician:** Dr. Nevin Murray

**ELIGIBILITY:**
- Previously untreated Stage IIIB or IV disease  
  - May be used as second-line therapy if prior first-line treatment with an EGFR tyrosine-kinase inhibitor (eg: LUAVGEFF)
- Also:
  - Previously untreated Stage IIIA disease not amenable to combined modality therapy
  - Inoperable early stage disease
  - Recurrent disease, including individuals treated with adjuvant chemotherapy following resection of early stage disease or individuals treated with combined modality therapy for locally advanced disease
- Adequate hematologic, hepatic and renal function.
- Age greater than or equal to 18 years.
- ECOG performance status 0, 1.
- Protocol NOT to be delivered with concurrent radiotherapy.
- For other indications, BC Cancer Agency Compassionate Access Program (CAP) approval must be obtained.

**EXCLUSION:**
- ECOG performance status greater than or equal to 2

**TESTS:**
- Baseline: CBC & differential, platelets, serum creatinine, liver enzymes
  - C-reactive protein and albumin (optional, and results do not have to be available to proceed with first treatment)
- Before each treatment: CBC & differential, platelets, serum creatinine
- Before cycle 4 and anytime if clinically indicated*: liver enzymes
  *See precaution #5 for guidelines regarding hepatic function.

**PREMEDICATIONS:**
- dexamethasone 8 mg PO bid for 3 days starting one day prior to each administration of DOCEtaxel
- A minimum of 3 doses of dexamethasone pre-treatment are required
- Antiemetic protocol for highly emetogenic chemotherapy (see protocol SCNAUSEA).
- DOCEtaxel-induced onycholysis and cutaneous toxicity of the hands may be prevented by wearing frozen gloves starting 15 minutes before DOCEtaxel infusion until 15 minutes after end of DOCEtaxel infusion; gloves should be changed after 45 minutes of wearing to ensure they remain cold during the entire DOCEtaxel infusion.
TREATMENT:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
<th>BCCA Administration Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOCETaxel</td>
<td>75 mg/m²</td>
<td>IV in 250 mL* NS or D5W over 1 hour (use non-DEHP equipment)</td>
</tr>
<tr>
<td>CISplatin</td>
<td>75 mg/m²</td>
<td>Prehydrate with 1000 mL NS over 1 hour, then CISplatin IV in 500 mL NS with 20 mEq KCl, 1 g magnesium sulfate, 30 g mannitol over 1 hour</td>
</tr>
</tbody>
</table>

*If 75 to 185 mg, use 250 mL bag. If greater than 185 mg, use 500 mL bag.

- Repeat every 21 days x 4 to 6 cycles

DOSE MODIFICATIONS:

1. **Hematology** (for DOCETaxel)

<table>
<thead>
<tr>
<th>ANC (x 10⁹/L)</th>
<th>Platelets (x 10⁹/L)</th>
<th>Dose*</th>
</tr>
</thead>
<tbody>
<tr>
<td>greater than or equal to 1.5 and greater than 100</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>1 to 1.49</td>
<td>75 to 100</td>
<td>75%</td>
</tr>
<tr>
<td>less than 1</td>
<td>less than 75</td>
<td>Delay</td>
</tr>
</tbody>
</table>

*Consider decreasing DOCETaxel to 75% if an episode of febrile neutropenia occurs with the prior cycle of treatment

2. **Hepatic dysfunction**: for DOCETaxel

<table>
<thead>
<tr>
<th>Alkaline phosphatase</th>
<th>AST and/or ALT</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 2.5 x ULN</td>
<td>less than 1.5 x ULN</td>
<td>100%</td>
</tr>
<tr>
<td>2.5 to 5 x ULN</td>
<td>1.5 to 5 x ULN</td>
<td>75%</td>
</tr>
<tr>
<td>greater than 5 x ULN</td>
<td>greater than 5 x ULN</td>
<td>Delay*</td>
</tr>
</tbody>
</table>

*Discuss with contact physician

ULN = upper limit of normal

3. **RENAL DYSFUNCTION**: for CISplatin

<table>
<thead>
<tr>
<th>Calculated Cr Clearance (mL/min)</th>
<th>CISplatin dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>greater than or equal to 60</td>
<td>100%</td>
</tr>
<tr>
<td>45 to 59</td>
<td>80% CISplatin</td>
</tr>
<tr>
<td>less than 45</td>
<td>Hold CISplatin or delay with additional IV fluids</td>
</tr>
</tbody>
</table>
PRECAUTIONS:

1. **Fluid retention**: Dexamethasone premedication must be given to reduce incidence and severity of fluid retention.

2. **Hypersensitivity** reactions to DOCEtaxel are common but it is not necessary to routinely initiate the infusion slowly. If slow initiation of infusion is needed, start infusion at 30 mL/h x 5 minutes, then 60 mL/h x 5 minutes, then 120 mL/h x 5 minutes, then complete infusion at 250 mL/h (for 500 mL bag, continue 250 mL/h for 5 minutes and then complete infusion at 500 mL/h). Refer to BCCA Hypersensitivity Guidelines.

3. **Extravasation**: DOCEtaxel causes pain and tissue necrosis if extravasated. Refer to BCCA Extravasation Guidelines.

4. **Neutropenia**: Fever or other evidence of infection must be assessed promptly and treated aggressively.

5. **Hepatic Dysfunction**: DOCEtaxel undergoes hepatic metabolism. Hepatic dysfunction (particularly elevated AST) may lead to increased toxicity and usually requires a dose reduction. Baseline liver enzymes are recommended before cycle 1 and then if clinically indicated (e.g., repeat liver enzymes prior to each treatment if liver enzymes are elevated, liver metastases are present or there is severe toxicity such as neutropenia). If liver enzymes are normal and there is no evidence of liver metastases or severe toxicity, check liver enzymes after 3 cycles (i.e., at cycle 4). Note: this information is intended to provide guidance but physicians must use their clinical judgment when making decisions regarding monitoring and dose adjustments.

Call Nevin Murray or tumour group delegate at (604) 877-6000 with any problems or questions regarding this treatment program.

Date activated: 1 Apr 2009 (replacing LUCISDOC)

Date revised: 1 Nov 2016 (Test requirements and reference to gefitinib protocol updated)

REFERENCES:

1. Fossella F. Docetaxel + Cisplatin (DC) and Docetaxel + Carboplatin (DCCb) vs Vinorelbine + Cisplatin (VC) in chemotherapy –naïve patients with advanced and metastatic non-small cell lung cancer (NSCLC): Results of a multicenter, randomized phase III study. European Journal of Cancer Vol 37, Suppl. 6, October 2001, page 154.