LONDON CANCER ALLIANCE West and South

# Breast Pathway Group – Paclitaxel Albumin (Abraxane) in Early Breast Cancer

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| Indication: | Alternative for the neo-adjuvant treatment of breast cancer in patients who have documented taxane hypersensitivity (unlicensed use)<br><br>Alternative treatment for the adjuvant treatment of breast cancer in patients who have documented taxane hypersensitivity (unlicensed use) |
| Regimen details: | Paclitaxel Albumin (Abraxane) 260mg/$m^2$ IV Day 1 |
| Administration: | The dose will be supplied as 5mg/ml solution in an empty 250ml infusion bag given over 30 minutes.<br>Do not use an in-line filter. |
| Frequency: | Day 1, every 21 days, for 3 to 4 cycles |
| Pre-medication: | Not routinely required |
| Anti- emetics: | Low emetogenicity<br>Follow Local Anti-emetic Policy |
| Supportive medication: | GCSF as per Local Policy<br>Mouthcare as per Local Policy |
| Extravasation: | Vesicant<br>Paclitaxel albumin (Abraxane) should be administered with appropriate precautions to prevent extravasation.<br>If there is any possibility that extravasation has occurred, contact a senior member of the medical team and follow local protocol for dealing with cytotoxic extravasation |

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| Version: 1.0 Supersedes: all other versions | Approved by LCA Breast Pathway Chemotherapy Lead: Mark Harries |
| Reason for Update: LCA Protocol Development | Approved by LCA Joint Delivery Subgroup Co-Chairs: Pauline McCalla & Rebecca Johl |
| Prepared by: Lisa Yuen | Approved by LCA Medicines & Chemotherapy Steering Group Chair: Jamie Ferguson |
| Second check by: Laura Cameron | Date prepared: November 2014 Review Date: November 2016 |

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| Regular investigations: | Prior to Cycle 1: | |
| | FBC | Day 1 (within 14 days) |
| | LFTs | Day 1 (within 14 days) |
| | U&Es | Day 1 (within 14 days) |
| | MUGA scan/ECHO | See Comments |
| | Prior to Day 1 (all cycles): | |
| | FBC | Day 1 (within 72 hours) |
| | LFTs | Day 1 (within 72 hours) |
| | U&Es | Day 1 (within 72 hours) |

Toxicities: Myelosuppression, infection, neuropathy, anaemia, alopecia, fatigue, myalgia, arthalgia, nausea, vomiting, diarrhoea, stomatitis, cardiotoxicity, skin reactions, nail disorders, eye problems, anorexia, pneumonitis, dizziness, hypersensitivity reactions (uncommon - see comments)

## DOSE MODIFICATIONS

### Haematological Toxicity

| Neutrophils (x $10^9$/L) | | Platelets (x $10^9$/L) | Dose |
|---|---|---|---|
| ≥ 1.0 | & | ≥ 100 | 100% |
| < 1.0 | & / or | < 100 | Delay for 1 week.<br>Repeat FBC - if recovered to above these levels, resume treatment with 100% dose |

In neoadjuvant/adjuvant treatment, dose reduction and delays can compromise outcome.

- GCSF should be considered if more than one delay and/or before dose reduction. If in doubt, seek Consultant advice.
- If during the preceding cycle, the patient has experienced neutrophils < 0.5 x $10^9$/L or has febrile neutropenia diagnosed, GCSF should be considered.
- If despite GCSF treatment, febrile neutropenia occurs or a dose delay is required - seek Consultant advice and consider dose reduction by 25%
- If platelets persistently < 100 x $10^9$/L on Day 1 despite dose delay - seek Consultant advice and consider dose reduction by 25%


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## Non-haematological Toxicities

### Renal Impairment

Studies in patients with impaired renal function have not been performed and insufficient data are currently available to recommend dose modifications in patients with renal impairment.

### Hepatic Impairment

| Bilirubin | | AST / ALT | Dose |
|---|---|---|---|
| < 2 x ULN | & / or | < 2 x ULN | 100% dose |
| 2 - 5 x ULN | | 2.5 - 9 x ULN | Reduce to 220mg/m$^2$ |
| > 5 x ULN | | > 10 x ULN | Discontinue |

### Dose modifications for other toxicities as appropriate

Sensory neuropathy

| Grade | Sensory neuropathy | 1st occurrence | 2nd occurrence |
|---|---|---|---|
| 1 | Paresthesia (including tingling) but not interfering with function | Give 100% dose | Give 100% dose |
| 2 | Paresthesia interfering with function, but not interfering with activities of daily living | Give 100% dose | Give 100% dose |
| 3 | Paresthesia interfering with activities of daily living | Withhold until recover to grade 1-2, then reduce dose to 220mg/m$^2$ | Withhold until recover to grade 1-2, then reduce dose to 180mg/m$^2$ |
| 4 | Disabling | Withhold until recover to grade 2, then reduce dose to 220mg/m$^2$ | Withhold until recover to grade 2, then reduce dose to 180mg/m$^2$ or discontinue |

Location of regimen delivery: Outpatient setting.
Availability of resuscitation equipment must be ensured as a standard precaution.

Comments:

Hypersensitivity: Hypersensitivity reactions are rare, however very rare events of anaphylaxis have been reported. Availability of resuscitation equipment must be ensured as a standard precaution. If a

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| | hypersensitivity reaction occurs, Abraxane should be discontinued immediately and symptomatic treatment should be initiated. The patient should **not** be rechallenged. |
| Cardiotoxicity | Rare reports of congestive heart failure and left ventricular dysfunction have been observed in patients with underlying cardiac history or previous exposure to cardiotoxic products such as anthracyclines. Patients should be monitored for the occurrence of cardiac events. |
| Visual acuity | Post-marketing experience has identified rare reports of reduced visual acuity due to cystoid macular oedema. Treatment should be discontinued. |
| Sodium content | When reconstituted, paclitaxel albumin (Abraxane) contains approximately 425 mg sodium per dose. To be taken into consideration by patients on a controlled sodium diet |
| Drug interactions: | The metabolism of paclitaxel is catalysed, in part, by cytochrome P450 isoenzymes CYP2C8 and CYP3A4. Caution should be exercised when administering paclitaxel concomitantly with medicines known to inhibit (e.g. ketoconazole and other imidazole antifungals, erythromycin, fluoxetine, gemfibrozil, cimetidine, ritonavir, saquinavir, indinavir, and nelfinavir)<br>or induce (e.g. rifampicin, carbamazepine, phenytoin, efavirenz, nevirapine) either CYP2C8 or CYP3A4. |

References:

Celgene Ltd. Summary of Product Characteristics: Abraxane® 23/08/2013 Available at http://www.medicines.org.uk/emc/ [Accessed 10/10/13]

Micromedex review – Abraxane. Available at http://www.micromedexsolutions.com/ [accessed 03/07/13]

Gradishar W, Tjulandin S, Davidson N et al. Phase III trial of nanoparticle albumin-bound paclitaxel compared with polyethylated castor oil-based paclitaxel in women with breast cancer. J Clin Oncol 2005, 23:7794-7803