non-adherence in 23/63 (36.5 %) and good adherence in 29/63 (46%). Agreement between clinician assessment and prescription issue data were seen in only 23/63 (36.5%) of cases and overall agreement using a weighted κ coefficient was poor (weighted agreement 63.5%, expected agreement 58.8%, κ 0.11, SE 0.1, z=1.16, p=0.12). There was no relationship between patients' age, gender, Juniper asthma control score, prescribed inhaled corticosteroid dose or FEV_1 percent predicted and the chances of agreement or disagreement between the two methods.

Conclusions Clinical judgement alone appears to be a poor predictor of adherence to medication in patients with difficult asthma. The assessment of non-adherence requires objective measurements. Prescription issue data are one such measurement; but further work is required.

Lung cancer: advances in treatment

S85 BRITISH THORACIC ONCOLOGY GROUP TRIAL, BTOG2: RANDOMISED PHASE III CLINICAL TRIAL OF GEMCITABINE COMBINED WITH CISPLATIN 50 MG/M^2 (GC50) VS CISPLATIN 80 MG/M^2 (GC80) VS CARBOPLATIN AUC 6 (GCB6) IN ADVANCED NSCLC

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Background Platins are considered key drugs in treating advanced NSCLC. Carboplatin has been reported as inferior to cisplatin in meta-analyses while the optimal dose of cisplatin is unclear.

Methods Eligibility was by histologically proven NSCLC, PS 0–2, stage IIIB/IV disease and a GFR of >60 ml/min, using the Wright equation. Treatment was gemcitabine (1250 mg/m^2) combined with cisplatin 50 mg/m^2, cisplatin 80 mg/m^2 or carboplatin AUC 6, for up to four cycles. Carboplatin dosing was calculated using the Calvert equation. At the time of analysis 1223 deaths had been reported, allowing analysis according to the statistical plan.

Results 1363 patients were randomised between April 2005 and November 2009. Trial arms were well balanced for PS, stage and age. Median age was 63, 32% were PS0, 60% PS1 and 8% PS2. The median delivered dose intensities (planned=100%) for platinum were GC50 99%, GC80 96% and GCb6 87%, for gemcitabine were 95%, 88% and 80% respectively. During treatment the proportion of patients experiencing at least one grade 3/4 AE were; GC50 27%, GC80 41% and GCb6 57%. At analysis 140 patients were alive and median follow-up was 21 months. Response rates were significantly different between arms; GC50 23%, GC80 33% and GCb6 28% (p=0.01). Median survival was: GC50 8.3 months, GC80 9.5 months and GCb6 10.0 months, with the GC50 arm statistically identified as differing from the other two. For subsequent primary comparisons of non-inferiority of GC50 v GC80 (HR=1.11) and GCb6 v GC80 (HR=0.96), the 95% CI for the cisplatin dose comparison (0.96, 1.27) did not exclude the pre-defined inferiority region of HR>1.2 whereas the 95% CI for the GCb6 v GC80 comparison (0.84, 1.10) fell well below this inferiority region.

Conclusion In advanced NSCLC the dose of cisplatin is important with GC50 giving the poorest outcome in terms of overall survival and response rate. GCb6 is not inferior to GC80 thus, in combination with gemcitabine, and in relation to survival time, carboplatin is clinically equivalent to that of cisplatin but other factors, such as quality of life, may influence treatment choice.

S86 QUALITY OF LIFE IN ADVANCED NON-SMALL CELL LUNG CANCER, EFFECTS OF CISPLATIN DOSE AND CARBOPLATIN IN COMBINATION WITH GEMCITABINE: RESULTS FROM BTOG2, A BRITISH THORACIC ONCOLOGY GROUP PHASE III TRIAL IN 1363 PATIENTS

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Background The standard of care for advanced NSCLC is platinum-based chemotherapy but the optimal dose of cisplatin and comparison with carboplatin is uncertain. With median survival at 8–12 months, the impact of such treatment choices on patients' quality of life (QoL) is important. The BTOG2 trial is a large phase III randomised trial comparing three treatment arms: gemcitabine (1250 mg/m^2 day 1 and day 8) with either cisplatin 80 mg/m^2 (GC80), cisplatin 50 mg/m^2 (GC50) or carboplatin AUC6 (GCb6). The trial was innovative in aiming to collect QoL data on all trial patients and is the largest study to date addressing this issue in NSCLC.

Methods QoL was measured at each cycle of chemotherapy and each follow-up visit using standard, validated questionnaires: EORTC QLQ-C30, LC13 and EQ-5D.

Results More than 8000 questionnaires were returned from 1363 randomised patients with compliance around 90% during the treatment period. At pre-randomisation, the mean global heath status score and EQ-5D utility score were 62% and 0.66. On initiation of treatment, patients in all three treatment arms had improved pain, cough, haemoptysis, insomnia, appetite loss and emotional functioning with associated improvements in global measures of QoL but these benefits generally fell away after completion of chemotherapy (12+ weeks). GC50 performed better in terms of the functioning scores and in terms of fatigue, nausea and vomiting while GCb6 performed worst for dyspnoea. All treatments had a deleterious effect on peripheral neuropathy with the post-treatment toxicity momentum markedly worse for GC80. Mean quality-adjusted life months were 6.1 on GC80, 5.6 on GC50 and 6.1 on GCb6.

Conclusion Although higher doses of cisplatin (80 mg/m^2) are thought detrimental to QoL compared to 50 mg/m^2 we found minimal differences but a noteworthy problem in delayed neuropathy. Also, the belief that carboplatin produces superior QoL compared to cisplatin at either dose is not obvious. Importantly carboplatin treatment may not palliate dysponea as well as cisplatin. Adjusting for QoL does not change the conclusions from the primary survival analysis.

S87 DELIVERED DOSE INTENSITY OF GEMCITABINE 1250 MG/M^2 WITH CISPLATIN AT 80 MG/M^2 (GC80) AND 50 MG/M^2 (GC50) AND CARBOPLATIN AUC 6 (GCB6) IN A PHASE III TRIAL OF ADVANCED NON-SMALL CELL LUNG CANCER (NSCLC): CORRELATIONS WITH CLINICAL OUTCOMES

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