**Title:** Pemetrexed in the first line treatment in non-small cell lung cancer (NSCLC): A multicentre prospective analysis of data from clinical practise of Czech Republic

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**Body:**

**Background:** Pemetrexed is a novel multi-targeted antifolate that is used in the treatment of NSCLC. This analysis presented examines data from Czech Republic obtained from 166 pts who were treated with pemetrexed in the 1st line treatment. Methods: Pts with advanced NSCLC were treated between 12/2008 and 12/2011 in 10 institutions with pemerexed 500mg/m² and cisplatin 80 mg/m² on day 1 every 3 weeks. We evaluated efficacy and toxicity. Results: From 166 pts were 47% men and 53% women, median age 62 years. Non-smokers were 32,5%, stop-smokers 26,5% and current smokers 41,0% pts. PS 0 was in 18,1%, PS 1 in 76,5% and PS 2 in 5,4%. Stage IV had 86,2% pts. Adenocarcinoma was confirmed in 84,9%. CR was confirmed in 1,5%, PR in 26,3%, SD 41,6%, 21,9% progressed and 8,8% pts were not evaluated. Major toxicities (grade 3-4) were neutropenia in 10,8%, leucopenia in 4,8%, anemia in 6,0% and thrombocytopenia in 1,2% pts, but the therapy was finished due to toxicity only in 6 (4,4%) patients. Median OS (95% CI) was 12,5 months (7,5; 17,5). Probability of one-year survival was 52,2%. PFS (95% CI) was 3,9 (3,4; 4,5) and probability of 6-months PFS was 38,9%. The best OS survival (13,5 months) was in pts with adenocarcinoma. We don't find the differences between groups of pts according smoking (p=0,532), sex (p = 0,696) and PS (p = 0,131). Conclusions: Pemetrexed with cisplatin as the 1st line treatment was
well tolerated (only 4.4% of pts finished therapy due to toxicity), with evidence of antitumour activity in adenocarcinomas. The results from clinical practice of Czech Republic are comparable with the results of registration study.