

( $p < 0.05$ ) in the pegfilgrastim arm. The total cost across all cycles in the pegfilgrastim arm was significantly lower regardless of what country costs were used ( $p < 0.02$  in all comparisons). The mean difference in Euros was 672 (Italian), 759 (Spanish), 982 (Dutch), 1068 (German), and 1836 (US). **CONCLUSIONS:** Compared with daily filgrastim, once-per-cycle fixed-dose pegfilgrastim led to reduced length of hospitalization and IV anti-infective use, and total cost post chemotherapy. In addition to its simplicity and convenience, pegfilgrastim appears to have superior economic value to daily filgrastim.

**PCN5**

### COMPARING THE COST-EFFECTIVENESS OF FRONT-LOADED DARBEPOETIN ALFA WITH EPOETIN ALFA FOR ANEMIA MANAGEMENT IN CHEMOTHERAPY-TREATED CANCER PATIENTS IN UNITED STATES

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**OBJECTIVES:** A recent 12-week randomized clinical trial evaluated the dose and schedule of “front loading”/maintenance phase darbepoetin alfa required to optimize the hemoglobin (hgb) response rates (hgb increase  $\geq 2$ g/dL in absence of RBC transfusion) among solid tumor patients with chemotherapy-induced anemia. A randomized group of epoetin alfa patients (40,000 U/wk; 37% patients dose escalated to 60,000 U/wk at 6 weeks for inadequate response) served as the control. Recent literature indicates the mean duration of treatment with epoetin alfa for chemotherapy-induced anemia to be 16 to 24 weeks. We designed a 20-week model to evaluate the cost-effectiveness of the optimal dose and schedule of “front loading”/maintenance phase darbepoetin alfa (4.5 mcg/kg/wk for 4 weeks followed by 3 mcg/kg/Q2W;  $n = 30$ ) compared to epoetin alfa ( $n = 30$ ). **METHODS:** Average wholesale prices of the two drugs in United States were used as the sole cost driver over the modeled 20-week anemia treatment period. For the cost-effectiveness analyses, 2 efficacy measures (% patients with hgb response and mean increase in hgb from baseline at the end of week 12) were used. **RESULTS:** Mean cumulative 20-week doses per patient for darbepoetin alfa and epoetin alfa were estimated to be 2,940 mcg and 903,600 U, respectively. Darbepoetin alfa provided multiple efficacy advantages over epoetin alfa: >32% patients with hgb response [65% (47,84) versus 49% (29,69)], >27% higher mean rise in hgb (1.31 versus 1.03), faster median time to response (day 50 versus day 78) and greater reduction in fatigue (6.0 versus 7.1). Despite a >20% cost increment, cost-effectiveness ratios (cost per % patients with hgb response and cost per rise in hgb from baseline) were superior for darbepoetin alfa (\$22,570 versus \$24,637 and \$11,199 versus 11,720, respectively). **CONCLUSIONS:** Compared to epoetin alfa therapy,

front-loaded darbepoetin alfa provides superior benefits to cancer patients with chemotherapy-induced anemia and is cost-effective.

**PCN6**

### ECONOMICAL EVALUATION OF RALTITREXED VERSUS FLUOROURACIL PLUS LEUCOVORIN (5-FU + LV) FOR TREATMENT OF ADVANCED COLORECTAL CANCER

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According to two multicenter, comparative, randomized, opened-labeled studies efficacy of raltitrexed and 5-fluorouracil plus leucovorin (5-FU + LV) for advanced colorectal cancer doesn't differ significantly. 5-FU + LV in Russia is much cheaper in Russia than raltitrexed but there is a significantly higher rate of severe side effects, such as neutropenia and mucositis, that may have influenced the costs. **OBJECTIVE:** Economical evaluation of raltitrexed versus 5-FU + LV (regimen Machover) for treatment of advanced colorectal cancer in Russia. **METHODS:** Decision model was used to quantify costs of alternative treatment. Published results from two trials were used to estimate probabilities of end-points (neutropenia, mucositis or no severe side-effects). Medical costs of treatment included costs of chemotherapy, treatment for side effects (neutropenia and mucositis), hospitalization and/or visits. Costs for chemotherapy were calculated on the basis of standard recommendations; costs for neutropenia and mucositis were assessed by retrospective analysis of 60 medical charts at Moscow Hematological Center. One-way sensitivity analysis was performed. **RESULTS:** The medium costs on one cycle of cytostatic therapy were 20 771,00 rubles (716,2 USD) for raltitrexed and 7 407,55 rubles (255,4 USD) for 5-FU + LV. The median treatment cost for side effects has compounded 25 373,95 rubles (875,0 USD) per person with neutropenia and 52 050,85 rubles (1794,9 USD) per person with mucositis. Expected costs for treatment of colorectal cancer taking into account both side effects was 85 647,46 rubles (2953,4 USD) for raltitrexed and 67 656,95 rubles (2333,0 USD) for 5-FU + LV. Sensitivity analysis demonstrated that the expected costs of raltitrexed therapy are less than 5-FU + LV when maximum value of costs for side effects are included into the model. **CONCLUSION:** Raltitrexed is more safe but more expensive than 5-FU + LV, but difference in costs decreases when severe side effects are taken into account.

**PCN7**

### MAJOR DETERMINANTS OF COST IN ADVANCED NON-SMALL-CELL LUNG CANCER CHEMOTHERAPY REGIMES IN FRANCE

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