pared to those with low or no GC exposure. These findings provide new evidence that vertebral fractures have substantial increases on treatment costs among GC patients. Also, greater PMPM increases from vertebral fractures among high GC patients versus low GC patients suggest vertebral fractures increase in severity with GC exposure. These results also support the need for adjuvant therapy to reduce fracture risk and associated morbidities.

**ASTHMA & RESPIRATORY DISORDERS**

**COST OF ASTHMA IN CHILDREN IN VLADIVOSTOK**
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OBJECTIVES: Estimation the cost of asthma in children in Vladivostok. METHODS: In cost of disease we determined direct expenses: pharmacotherapy, hospital, outpatient and emergency expenditures; indirect expenses: disability pension, temporary invalidity of parents and quality of child’s life with asthma in Vladivostok during 1995–1998. 645 families with asthmatic children filled in a questionnaire. RESULTS: Family expenses on pharmacotherapy of asthmatic child during the 1996 year averaged 1520.81 roubles (rub) ($303), in 1998—increased to 2149.45 rub at the expense of basic therapy. In 1995–1998. 645 families with asthmatic children filled in a questionnaire. RESULTS: Family expenses on pharmacotherapy of asthmatic child during the 1996 year averaged 1520.81 roubles (rub) ($303), in 1998—increased to 2149.45 rub at the expense of basic therapy. In 1996 direct family expenses on asthmatic child was 10.98 ± 1.33% of annual income, in 1998—13.70 ± 1.46% and bulk of the expenditures was pharmacotherapy. 1159 children with asthma in 1995 had 618 cases of hospitalization, total duration was 16 058 days. One child with asthma in 1995 had 13.64 ± 1.0 days of hospitalization, in 1998—8.81 ± 0.92. Volume of hospitalization depended on heaviness of disease. In 1996 among 22 651 emergency cases in city 230 (1.02%) was to asthmatic children. In 1998 this index was decreased to 109. In 1996 out-patient expenses one asthmatic child was 223.05 ± 32.50 rub, in 1998—272.46 ± 36.96 rub. In 1997–1998 expenses for allergologist and pulmonologist are increased. In 1996 among 1028 asthmatic children 37 got disability pension (270 rub in month). Total family expenses on asthmatic child in Vladivostok in 1996 was 4070.84 ± 86.70 rub ($810.83 ± 10.63), in 1997—4767.58 ± 69.94 rub ($821.99 ± 8.46), in 1998—4203.58 ± 46.24 rub. In 1996 on asthmatic child in Vladivostok bulk of the expenditures was hospitalization, in 1998—pharmacotherapy. CONCLUSION: Introduction in Vladivostok in 1997–1998 the National program of treatment asthma in children resulted in wide use of basic therapy, increasing family expenses asthmatic child on pharmacotherapy and decreasing municipal expenses on hospitalization, emergency care and indirect losses of family.