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.

**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 (rb) ($303), in 1998—increased to 2149,45 rb 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 rb, in 1998—272,46 ± 36,96 rb. In 1997–1998 expenses for allergologist and pulmonologist are increased. In 1996 among 1028 asthmatic children 37 got disability pension (270 rb in month). Total family expenses on asthmatic child in Vladivostok in 1996 was 4070,84 ± 86,70 rb ($810,83 ± 10,63), in 1997—4767,58 ± 69,94 rb ($821,99 ± 8,46), in 1998—4203,58 ± 46,24 rb. 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.

**USE OF RESPIRATORY ASSIST DEVICES BY MEDICARE BENEFICIARIES**

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**OBJECTIVES:** To identify factors associated with the increase in the use of bilevel positive pressure ventilators with timed backup in the Medicare population from 1996 through 1999. **METHODS:** We extracted durable medical equipment claims for bilevel positive pressure ventilators with and without timed backup (RAD and RAD-timed, respectively), continuous positive airflow pressure devices (CPAP) and oxygen supplies (gas, liquid, concentrator) from the 1994–1999 claims files for 5% of Medicare beneficiaries, and compared disease prevalence, oxygen use, and other factors in the different user groups. **RESULTS:** Between 1994 and 1998, new use increased for both RAD and RAD-timed devices, but was significantly greater for the latter. Oxygen use remained relatively stable among CPAP and RAD users, but increased in RAD-timed users. RAD-timed users were more likely than RAD users to have claims for oxygen (80% vs. 44%), or diagnoses suggesting chronic lung disease (86% vs. 35%) in the first year of device use; RAD users were more likely to have a diagnosis of sleep apnea/other sleep disorder in the first year of use (73% vs. 14%). **CONCLUSIONS:** Debate continues over appropriate indications, servicing and reimbursement for respiratory assist devices, particularly those with timed backup. RAD and RAD-timed device users differ significantly. The high prevalence of COPD diagnoses reflects current interest in the use of these devices in the long-term treatment of this disorder; other indications suggested in the literature, such as respiratory support in neuromuscular disorders or congestive heart failure, appeared rarely. Growth in the use of the more costly RAD-timed devices among oxygen users varied by region as well as by year, possibly reflecting regional differences in coverage, medical practice or marketing. Person-level, longitudinal analysis of claims data supports the development and implementation of coverage and payment policies, by helping to delineate the demographic and clinical characteristics of user groups.

**THE STANDARDIZED ASTHMA-RELATED QUALITY OF LIFE QUESTIONNAIRE (AQLQ-S): DOES SOCIOECONOMIC STATUS EFFECT MEASUREMENTS?**

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**OBJECTIVE:** The objective of this analysis was to evaluate the impact of social class on correlation between the standardized AQLQ, self-rated asthma severity and con-