Investigation of economic factors in laboratory test ordering at a primary health care level in northern Sweden

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Abstract

Objective: The aim of this study was to investigate whether an economic reform, going into effect January 1st 2010 with a decentralization of budget responsibility, affected the number of ordered laboratory tests from the hospital laboratory or performed by point-of-care testing at primary health care centres in the Swedish county of Västerbotten.

Methods: A total of 1,652,847 hospital laboratory and an estimated 626,560 point-of-care laboratory tests ordered in conjunction to 788,586 consultations during 2006 to 2011 from 14 primary care centres were analysed. Bivariate correlation was used to find correlation between the number of tests ordered and the economic reform. Other variables such as age and sex of patients, sex and level of training of physicians was also tested for correlation with the number of tests ordered. Using partial correlation, the results were then controlled for the variables shown to affect laboratory test ordering patterns. Results: In 4 out of 14 primary health care centres the number of analyses was affected during the first six-month period after the reform but remained in only one health care centre during the second half-year period. When controlled for all variables included in the study, only 3 out of 14 primary care centres showed a significant correlation between the number of tests ordered by general practitioners and the economic reform. Conclusions: The economic reform with increased budget responsibility had no major effect on the number of laboratory tests ordered by the physicians at the primary care centres. Other variables, such as sex of physician as well as age and sex of patients were important for the number of ordered laboratory tests.