INFECTIONOUS DISEASES

EFFICACY OF ZINC LOZENGES ON THE DURATION OF COMMON COLD SYMPTOMS: A META-ANALYSIS REVISITED

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OBJECTIVE: Cold symptoms are both common and costly. The effectiveness of zinc lozenges in reducing the duration of common cold symptoms has been investigated in several studies with discrepant results. We therefore performed a meta-analysis in an attempt to clarify these discrepancies and determine the overall effectiveness of zinc lozenges in the treatment of the common cold. METHODS: A computerized search of the MEDLINE database from January 1966 to December 2000 was performed to identify randomized controlled trials comparing zinc lozenges to placebo for the common cold. Data were systematically abstracted. The outcome assessed was the duration of cold symptoms. Quantitative pooling was undertaken using the Dersimonian and Laird random-effects model. RESULTS: Five studies met the inclusion criteria and provided sufficient information to calculate the mean duration of cold symptoms. A total of 562 subjects were included in these trials: 283 in the zinc group and 279 in the placebo group. The summary mean duration of cold symptoms in the zinc group was 2.25 days less than that in the placebo group (95% confidence interval [CI], 1.07–3.43). However, there was evidence of statistical heterogeneity among studies (P = 0.003). In a subgroup analysis, we found that there were two sets of homogeneous studies with different magnitudes of reduction: 3.6 days (95% CI: 2.77,4.43) and 1.32 days (95% CI: 0.52,2,13). CONCLUSIONS: Zinc lozenges appear to be an effective treatment for reducing the duration of cold symptoms. However, further analyses are required to explore the sources of heterogeneity. A formal cost-effectiveness analysis may be necessary to determine whether this intervention is economical.

IMPACT OF CYTOMEGALOVIRUS (CMV)-RELATED READMISSION ON POST HEART TRANSPLANT RESOURCE USE

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OBJECTIVES: The incidence and costs associated with the rehospitalization of heart transplant patients for the treatment of CMV infection have not been well documented. Two adult heart transplant centers participated in a Transplant Infection Cost Analysis program that was implemented in several centers covering different solid organ programs. METHODS: A retrospective chart review of all patients rehospitalized within two years post-transplant identified the number of such readmissions, hospital costs and charges for the CMV associated readmission, and the length of stay. Data were pooled for analysis. All dollar amounts were standardized to 1997 dollars using the Medical Care component of the Consumer Price Index. RESULTS: Between 1994 and 1996, the two hospitals performed a total of 163 heart transplants. There were a total of 34 readmissions (21%) to these hospitals associated with a CMV infection. Total direct hospital costs were $740,220 (average $21,771 and range $1,324–$349,224). Total related charges were $1,431,793 (average $42,111 and range $2,323–$698,447). Total days of inpatient care for CMV infection were 371 days (average 10.9 and range 2–95) at an average cost per day of $1,997. CONCLUSIONS: Data from two heart transplant centers demonstrate that CMV infection caused significant readmissions. Use of hospital resources to treat CMV infection one to two years post-transplant was substantial. Total cost of CMV was not captured: readmission to other hospitals, outpatient costs, physician costs, mortality and lost productivity should be included for a complete assessment of the economic burden of CMV infection.