Vitamin D supplements and respiratory tract infections

What is the overall effect of vitamin D supplementation on risk of acute respiratory tract infection, and what factors modify this effect? This controversial subject is reviewed in this report.

The authors have performed a systematic review and meta-analysis of 25 trials of vitamin D supplementation and the incidence of acute respiratory infection. Over 11,000 participants were involved and there was a risk reduction of infection in all age groups (odds ratio 0.88) receiving vitamin D. The benefit was greater in those who were very deficient in vitamin D.

A commentator noted the results but felt that there was insufficient evidence from the review to institute supplementation in the general population as there was only a 2% absolute reduction in respiratory infection.


Bystander efforts and one-year outcomes in out-of-hospital cardiac arrest

Survival after out-of-hospital cardiac arrest has increased in several countries after improvements in bystander interventions and post-resuscitation care.

In this paper from Denmark, the long-term functional outcome of the survivors is documented. Two thousand eight hundred and fifty-five patients who were 30-day survivors over an 11-year period were included. 10.5% had brain damage or were admitted to a nursing home, and 9.7% died during the one-year follow-up period. Bystander CPR and defibrillation both significantly increased over the study period.

The conclusions reached by the researchers were that bystander CPR and defibrillation were associated with risks of brain damage or nursing home admission and of death from any cause that were significantly lower than those associated with no bystander resuscitation.


Recommendations about starting inhaled corticosteroid treatment for mild asthma

Low-dose inhaled corticosteroids (ICS) are highly effective for reducing asthma exacerbations and mortality. Conventionally, ICS treatment is recommended for patients with symptoms on more than two days per week, but this criterion has scant evidence.

These researchers speculate that this restriction is invalid and designed a study to elucidate. Over 7,000 appropriate patients, including 58% who had 0–2 symptoms per week were randomised to receive budesonide inhaled once daily or placebo.

The results of their study lead them to conclude that “low-dose ICS leads to substantial risk reduction in mild asthma, both for exacerbations and for decline in lung function, in patients with infrequent baseline symptoms who would not previously have been considered for ICS treatment”.

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