Fix Covid Now

- If we act on the data showing it is highly probable that vitamin D can save lives, we could fix this pandemic in a month, for perhaps \$2 per person. There would be no significant adverse effects.
- If we wait for "evidence" that vitamin D mitigates the impact of Covid-19, thousands more will die.
- If we did it and it failed, so what? The risk from not acting is much greater than the risk from acting.
- Dosage is important and generally misunderstood.

Two countries have acted on this already, Egypt and Slovenia. Why can't we?

The OMNS has been publicising the importance of vitamins D and C, and the minerals zinc and magnesium, in this pandemic since January [1]. I have been writing about Vitamin D and sunlight for over 30 years [2], and it has never been more relevant.

If you caught the Covid-19 virus right now, having a good vitamin D status (from taking a supplement already) would;

- Reduce your risk of the disease becoming severe by 90%
- Reduce your risk of dying by 96%

This is not "proven" or "evidence-based" until we have done controlled trials comparing it to placebo. Any volunteers for that? But the data, already strong, has been pouring in since the start of the pandemic. Here's the data for the two statements above.

[A Hazard Ratio of 4 means that in one condition, for instance vitamin D deficiency, you are 4 times more likely to suffer the "hazard" than in another condition, say vitamin D adequacy. The graphics are all mine.]

A Philippino study [3];

With a deficient vitamin D status (<50nmol/L) the probability of becoming Severe or Critical with Covid-19 was 72.8% against 7.2% with adequate vitamin D (>75nmol/L). The Hazard Ratio is 10.0.



An Indonesian study [4];

With a deficient vitamin D status (<50nmol/L) the mortality rate from Covid-19 was 98.8% against 4.1% with adequate vitamin D (>75nmol/L). The Hazard Ratio is 24.1.

% Mortality by vitamin D status 100
98.8
75
50
25
0
4.1
>75nmol/L 50-75nmol/L <50nmol/L

A review of data on Europe [5];

For countries in Europe the probability of developing Covid-19, and of dying from it, are negatively correlated with mean population vitamin D status, with both probabilities reaching zero above about 75nmol/L.

(The chart also shows the lower vitamin D levels for the elderly in Spain and Italy [6])



25(OH)D mean nmol/L

Dosage is important and generally misunderstood

Recent studies have suggested in discussion that more than 4000IU per day of vitamin D3 may carry a risk of harm, citing the UK Scientific Advisory Committee on Nutrition report of 2016 which set the recommended Upper Level (UL) intakes of 50mcg/2000iu per day. The report says; *Excessive vitamin D intakes have, however, been shown to have toxic effects (Vieth, 2006).* However this is misleading, as the Vieth paper [7] states;

Published reports suggest toxicity may occur with 25(OH)D concentrations beyond 500 nmol/L This leaves a wide margin of safety.

The 3 papers above show that a vitamin D3 blood level of 75 nmol/L is needed for protection against Covid-19. Government recommendations for vitamin D intake – 400IU/day for the UK and 600IU/day for the USA (800IU for >70 years) and the EU – are based primarily on bone health. This is woefully inadequate in the pandemic context. An adult will need to take 4000IU/day of vitamin D3 for 3 months to reliably achieve a 75 nmol/L level [9]. Persons of colour may need twice as much [8].

References

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