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## Coronary artery disease varies seasonally in subtropics

EDITOR—Seto et al's findings of seasonal variation in mortality from coronary artery disease in Hawaii<sup>1</sup> are similar to our own findings in Hong Kong, a subtropical city.

Hong Kong has 6.2 million people residing and working in an urban and suburban area of about 1070 km<sup>2</sup>. In summer and autumn (May-October) the temperature is warm (mean 27°C; range 22-30°C); in winter and spring (November-April) it is an average of 8°C cooler (19°C; 7-27°C).

As a single disease entity, coronary artery disease (ICD-9 410-414) emerged as the biggest killer in Hong Kong (3181 deaths in 1992). The sex difference in mortality is smaller than in other parts of the world; for the 40-69 age group the male to female ratio was 2.4 compared with 2.8 for the United States and 3.3 for England and Wales, and prevalence was greater in higher than in lower socioeconomic groups. The age standardised mortality (based on Segi's world populations<sup>2</sup>) from 1972 to 1992 stayed close to 60/100 000 for men and slightly above 30/100 000 for women—lower than in all countries except Japan,<sup>3</sup> and less than half the rate in Hawaii.

The crude death rates for coronary artery disease, with three month moving averages (figure), show a strong seasonal variation and, compared with Hawaii, a stronger correlation with temperature ( $r = -0.60$  v  $-0.55$ ), total hours of bright sunshine ( $r = -0.30$  v  $-0.27$ ) and deaths from respiratory infection ( $r = 0.53$  v  $0.41$ ),  $P < 0.001$  for all. The difference between the peak month (January) and trough month (September) was greater than that in Hawaii (37% v 22%) and the figures quoted for Scotland and New Zealand.

Seto et al interpret their data as showing that small changes in weather may affect mortality. In Hawaii, although monthly variation in temperature was small, the changes in hours of sunlight were marked and would be highly correlated with temperature.

The magnitude of seasonal variation in both coronary artery disease and respiratory deaths in the subtropical city of Hong Kong is stronger than that in the Hawaiian tropical climate and comparable to or greater than that in other temperate zones. Studies in seasonal variation of disease may shed light on the cause of terminal events in coronary artery disease.

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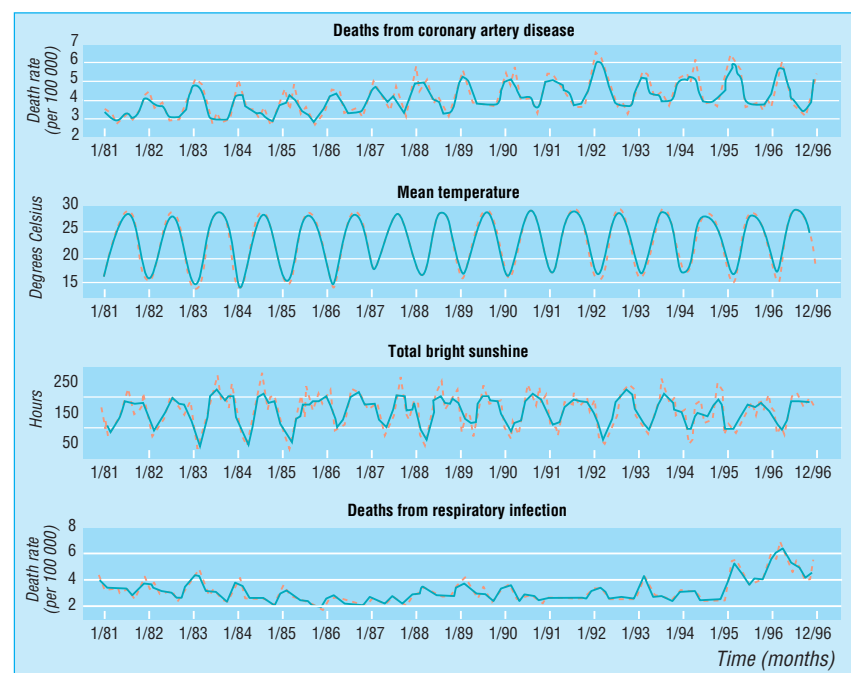
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Seasonal variation (broken line shows three month moving average) in monthly death rates from coronary artery disease, with average temperature, hours of sunlight, and deaths from respiratory infection

## Acute urinary retention in men

### Management is more complex issue than was described

EDITOR—Emberton and Anson's review of acute urinary retention was timely and informative.<sup>1</sup> In part of it they focused on the use of finasteride to reduce the risk of the disease.<sup>2</sup> We disagree with them that the continuous administration of finasteride for four years is probably warranted in men with large prostates, moderate to severe symptoms, and poor urinary flow rates.

Firstly, the cost implications are enormous. To prevent one event (acute urinary retention or prostatectomy) 15 patients would have to be treated for four years at a cost of £19 475.<sup>3</sup> Secondly, the reduction in mean symptom scores with long term finasteride treatment is small (mean reduction 3.3 points) and not comparable with the results obtained after prostatectomy (mean reduction 19.4 points).<sup>4</sup> Furthermore, what should happen after four years of treatment has not been established. Should finasteride treatment be stopped, with the probability of prostatic regrowth, or should patients take it for life? The answers are not known. We therefore conclude that long term finasteride is not efficient or cost effective in preventing acute urinary retention and that prostatectomy should remain first line treatment in such patients.

The review also describes patients with drained bladder volumes of more than 1 litre and low detrusor pressures who have a worse outcome (failure of catheter removal or failure of prostatectomy). Most urologists would describe this group as having chronic urinary retention, although there are no agreed criteria defining this condition. Uniform standards are urgently needed to evaluate data and therefore compare different treatments.

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3 Proscar: basic NHS cost. *Monthly Index of Medical Specialities (MIMS)* 1999;4:231.

4 Emberton M, Neal DE, Black N, Fordham M, Harrison M, McBrien MP, et al. The effect of prostatectomy on symptom severity and quality of life. *Br J Urol* 1996;77:233-47.

### Authors' reply

EDITOR—The principal concern of Elkabir et al relates to the cost of preventing one episode of acute urinary retention by use of finasteride. Unfortunately, their calculation was incorrect. Their mistake was to apply the overall treatment effect (finasteride v placebo) to their analysis rather than calculate the numbers needed to treat for the group