



Overtime—a risk factor for coronary heart disease (CHD)?

The epidemiologists in this study observe that CHD and overtime work are both common features in developed countries. They speculate on their relationship in this prospective study of 6014 British civil servants (70% men) aged 39–61 yrs over 11 years. Their conclusion was that 3–4 hr overtime work per day was associated with 1.60-fold increased risk of incident CHD compared with employees with no overtime work. Adjustment for all 21 cardiovascular risk factors measured made little difference to these estimates. The overall increased risk was 1.67 for fatal cardiovascular events and non-fatal myocardial infarction.

Convincing? Maybe—an editorial writer points out that the blood pressure risk factor issue is uncertain as only one reading of blood pressure was taken at the outset and no further readings were taken. He also points out that no information is available about whether the participants were taking cardio-protective medication. These points might confound interpretation of the results. As an aside it is slightly amusing that although the researchers have called their study the Whitehall Study, the majority of the authors are based outside England (3 Finland, 1 France and 3 England).

European Heart Journal 2010;31:1737-44 & 1672-3.

Age adjusted D-dimer cut-off value in the elderly?

The D-dimer assay is commonly used as a screening test for the presence of thromboembolic disease. The usual cut-off value is $<500\mu\text{g/l}$ (500ng/ml)—i.e. thromboembolism unlikely below the cut-off. However, as we have noted in the past (NZMJ 12/10/07) there is evidence that D-dimer levels are higher in the elderly and it has been suggested that the threshold should be raised in the elderly.

This retrospective cohort study from Europe involves 3000 patients who were suspected of having thromboembolic disease. All had investigation for pulmonary embolism consisting of a clinical probability calculation, a D-dimer test, and, finally, computed tomography or leg venous compression ultrasonography, or both. The diagnosis was correlated with the D-dimer levels and the age of the patient by decade—i.e. 50s, 60s, etc. They derived a formula for the cut-off age—patient age $\times 10$ ug/L. So the cut-off age for a 75 yr old would be 750. They believe that the new cut-off value, combined with clinical probability assessment, greatly increased the proportion of older patients in whom pulmonary embolism could be excluded without reducing safety. Now we need a prospective study to validate their proposition.

BMJ 2010;340:c1475.

The family history in the medical record

All medical students are told of the importance of the family history of their patients. This study reports on the quality of the family histories recorded in the short-stay

medical unit admission notes in an Australian teaching hospital (The Royal Perth). The short-stay unit is for general medical patients who are expected to stay 3 days or less. 300 case notes were randomly selected and reviewed. The family history was well done in 48 (16%), insufficiently done in 31 (10.3%) and not recorded at all in 221 (73.7%). There was a trend to more comprehensive family histories in younger patients and those with chest pain. Not good. Why? Perhaps the short-stay ward situation; perhaps it may reflect local issues in undergraduate education in West Australia. Could a high work load be relevant? We can presume that this study will provoke some soul searching.

MJA 2010;192:682-4.

Reduced retinopathy progression in Type 2 diabetes

The ACCORD (Action to Control Cardiovascular Risk in Diabetes) Study group are primarily interested in cardiovascular events in Type 2 diabetes but are also interested in the reduction of retinopathy progression. In this paper they report on a sub-group of 2856 diabetic patients who were randomised to receive either intensive or standard treatment for glycemia (target glycosylated hemoglobin level, <6.0% or 7.0 to 7.9%, respectively) and also for dyslipidemia (160 mg daily of fenofibrate plus simvastatin or placebo plus simvastatin) or for systolic blood-pressure control (target, <120 or <140 mm Hg). At 4 yrs there was significantly less retinopathy progression in the intensive glycemia treatment group (7.3% vs 10.4%).

The fenofibrate plus simvastatin group also had a significantly less progression rate in their retinopathy (6.5% vs 10.2%). There was no reduction in progression in those whose hypertension was more stringently controlled. We will wait with interest longer follow up reports.

N Engl J Med 2010;363:233-44.

Ambulatory blood pressure monitoring (ABPM) in the community

Blood pressure (BP) recordings in the surgery or clinic have many failings—the main fault is that they are a one off snapshot and may be unrepresentative of the BP during 24 hrs. Other faults include different sphygmomanometers, different staff recording the BP and the white-coat effect. Labile and intermittent high or low BPs may evade detection. This review article provides evidence for the added value provided by ABPM. Several papers support this view including one meta-analysis involving >7000 patients followed over a median time of 9.5 yrs—ABPM better than conventional reading in predicting cardiovascular events.

Apparently the American Heart Association and the American Society of Hypertension favour ABPM. The equipment—a cuff, a small monitor weighing less than one pound attached to a belt and a connecting tube. Great, but there must be a hitch. Yes, two in fact. Some patients find they are uncomfortable and disturb their sleep. More important they are expensive and many health insurers in the USA will not reimburse their use.

Southern Medical Journal 2010;103:447-52.