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MINERVA

Heart disease as a cause of poverty ... and other stories

Can heart disease cause poverty?

An Australian study examines the relationship between getting a diagnosis of heart disease of any kind below the age of 70 years and falling into poverty over subsequent years (*BMC Public Health* doi:10.1186/s12889-016-3240-5). The authors found that heart disease is a risk factor for poverty at all ages up to 70. The hazard ratio is very high at age 20 (9 for income poverty, 14 for multidimensional poverty), falling steadily with age but still significant at 60 years old (1.3 and 1.5 respectively). The authors suggest that heart disease should be seen as a major driver of national poverty rates, but that is an extrapolation too far.

Journals don't sing in CONSORT

Readers opening a medical journal often just scan the abstracts of randomised controlled trials and only occasionally dig deeper. The Consolidated Standards of Reporting Trials (CONSORT) for Abstracts is meant to ensure that what you read there is an accurate reflection of the trial results. But a survey of 466 abstracts from five leading medical journals finds that a third of them failed to comply with CONSORT (*BMJ Open* doi:10.1136/bmjopen-2016-011082): the *Lancet* scores highest with 78%, and the *New England Journal of Medicine* lowest at 55%.

Hysterectomy before menopause and breast cancer

The Carolina Breast Cancer Study compared 1664 cases of invasive breast cancer with 1454 control subjects to investigate the associations of premenopausal hysterectomy and oophorectomy with breast cancer risk. The investigators found that in both black and white women, hysterectomy before the menopause was associated with an approximately 40% lower incidence of breast cancer, with no statistically significant difference if oophorectomy was added (*Am J Epidemiol* doi:10.1093/aje/kwv448). The association was not altered by subsequent use of oestrogen replacement.

Younger women and men with myocardial infarction

The American VIRGO study was primarily designed to investigate myocardial infarction in younger women (≤ 55 years old), but it also compared the characteristics of these women

with a similar sample of men with a mean age of 47 years (*Eur Heart J Acute Cardiovasc Care* doi:10.1177/2048872616661847). Young women with myocardial infarction had higher rates of cardiovascular risk factors and comorbidities than men, including diabetes, congestive heart failure, chronic obstructive pulmonary disease, renal failure, and morbid obesity. They also exhibited higher levels of depression and stress, poorer physical and mental health status, and lower quality of life at baseline.

Trial outcomes and clinical decisions

The purpose of doing interventional trials is to test alternative treatments in a way that improves clinical decision making. But a survey of 81 UK colorectal surgery centres showed that, although most clinicians agree on the key outcome measures for trials in their specialty, these outcomes—especially relating to survival—are not the same as those they prioritise in discussions with patients (*Trials* doi:10.1186/s13063-016-1492-0). This study raises important questions about how trial evidence is conveyed to patients in the real world of shared decision making.

Suicidality and sleep

Shakespeare's Macbeth was halfway into a wonderful description of sleep as the balm of hurt minds when he was rudely interrupted by his lady (Act 2, scene 2). A qualitative study based on interviews with 18 people with major depressive illness and suicidal thoughts and behaviours seeks to understand how these can be affected by lack of sleep (*BMJ Open* doi:10.1136/bmjopen-2016-012113). Sleeplessness deprives hurt minds of respite, and night is also the time when there is least support available and the least chance of being observed by others.

Microbiome of hospital air

As an immaculate and fragrant goddess, Minerva was shocked by the recent discovery that mortals go around wafting a great cloud of personal bacteria. Hospitals also exhale their own microbiome, which differs by location, according to air sampling from eight locations in a Californian hospital over six months. The resulting DNA libraries produced 972 million sequences, and monitoring these may give advance warning of the emergence of resistant microbes (*PLoS One* doi:10.1371/journal.pone.0160124).