MIXED BAG

Surviving retirement

The aim of most people's working lives is to build. Not only to build a family and a lifestyle, but to build something for retirement – sufficient income and resources to spend the final years of life comfortably, doing all the things that couldn't be done during the long years of work. Over the decades, in the Western world at least, the age at retirement has dropped; until now, many people retire at the age of 55 or 60. However, anecdotal reports suggest that those who retire early often do not live to enjoy their retirement. Now a recent paper in the *British Medical Journal* offers some evidence that this is indeed the case, at least in the petrochemical industry.

Shan Tsai and colleagues, from the Shell Health Services, put together a long-term, prospective cohort study to assess whether early retirement is associated with better survival. They looked at people who retired at 55, 60 and 65. As they point out, there are few studies that have evaluated the effect of early retirement on survival. This kind of study requires a longitudinal evaluation of survival patterns and a relatively long follow-up after retirement. To complicate matters still further, there are no readily available data from the USA on age and health status at retirement. Currently, there is no consensus on whether early retirement affects mortality. However, many researchers think that early retirement is harmful to health, putting this down to illness before retirement or change of life events associated with retirement. On the other hand, there is a widespread perception, generally among the lay public, that retiring early is a good thing and that it will lead to a longer life because retirees are more relaxed and their lives less demanding.

The results showed that people who retired at 55 and were still alive at 65 had a significantly higher mortality than those who retired at 65. Mortality was also considerably higher in the first 10 years after retirement at 55 compared with those who continued working. Mortality was also similar between those who retired at 60 and those who retired at 65. Moreover, mortality did not differ for the first 5 years after retirement at 60 compared with mortality among those continuing to work at 60.

The authors concluded that the long-term survival of people who retire early, at ages 55 or 60, is not better than that of those who retire at 65, particularly for people who retire when they are 55. In fact, mortality improved with increasing age at retirement for people from both high and low socioeconomic groups, defined according to employment grade. Of course it is reasonable to assume that some of the people who retired at 55 did so because of poor health. This was highlighted by the fact that mortality in this group in the first 10 years after retirement was almost double that of those of the same age who continued working. However, the health of those who retired at 60 was about the same as that of those who carried on working at 60.

There are several studies that report lower survival among those retiring early, which is attributed to poor health forcing early retirement. However, this study confirmed the increased mortality among those who retire early, but did not find evidence of lower survival among those who retired at 60. The authors reduced potential bias due to differences in health status between early and late (age 65) retirees by excluding survival for the first 10 years of follow-up after retirement at 55 and for the first 5 years after retirement at 60 for early retirees. They concluded that, although the effect of early retirement because of failing health may not be totally eliminated, survival rates remained significantly greater for those who retired at 65 compared with those who retired at 55. This was regardless of gender or socioeconomic status. To me this backs up what I have always suspected – keep mentally and physically active for as long as possible and you are more likely to enjoy the final years of your life.

Tsai SP, *et al*. *BMJ* 2005; **331:** 995.

Screening for and treating cervical cancer

Cervical cancer in women causes more than 233 000 deaths worldwide and more than 471 000 cases are diagnosed positive for cervical cancer each year, of which 80% occur in the developing world. The lifetime risk of a woman developing cervical cancer in a low-resource setting is approximately 2 - 4%. In the West and in the affluent parts of society in the developing world, women are generally screened for cervical cancer every year and called in immediately if there is an abnormality in their PAP smear. However, in the developing world, laboratory testing and biopsies are relatively rare and cervical cancer is a significant cause of mortality. Another factor is the problem associated with treating women when an abnormality is detected because, in resource-poor areas, women often do not return for results. Two studies reported in a recent issue of *JAMA* address these issues.

Lynn Denny and colleagues, from the University of Cape Town, have been working on ways of reducing this mortality among women in poor communities for many years. Their recent paper in *JAMA* suggests that, with the correct approach, this source of mortality can be reduced. Denny and colleagues assessed the safety of two screen-and-treat approaches for cervical cancer prevention, designed specifically for resource-poor settings. They recruited 6 555 non-pregnant women aged 35 - 65 through community outreach in women's health clinics in Khayelitsha, Cape Town. All patients were screened using human papillomavirus (HPV) DNA testing and visual inspection with acetic acid (VIA). Women were then

randomised into 1 of 3 groups. The first group received cryotherapy if the woman had a positive HPV DNA test. The second group received cryotherapy if the woman had a positive VIA test and the third group were given delayed evaluation.

The team found that the prevalence of high-grade cervical intraepithelial neoplasia and cancer (CIN 2+) was significantly lower in the two screen-and-treat groups at 6 months after randomisation than in the delayed-evaluation group. At 6 months, CIN 2+ was diagnosed in 0.8% of the women in the HPV DNA group and 2.23% of the women in the VIA group, compared with 3.55% of women in the delayed-evaluation group. A subset of women had a second colposcopy 12 months after enrolment. At 12 months the cumulative detection of CIN 2+ among women in the HPV DNA group was 1.4%, 2.91% among women in the VIA group and 5.4% among women in the delayed-evaluation group.

The authors concluded that both screen-and-treat approaches are safe and result in a lower prevalence of high-grade cervical cancer precursor lesions compared with delayed evaluation at both 6 and 12 months.

The second study took place in community health centres in predominantly Latino areas of cities in the USA. Wendy Brewster and colleagues point out that the incidence of cervical cancer is higher among low-income and minority women who have never had a conventional PAP smear or who do not return for follow-up after testing. They set out to look at how feasible and acceptable it was to immediately treat women with severely abnormal PAP smears by using a single-visit cervical cancer screening and treatment programme and to compare treatment rates and 12-month follow-up rates with those of women who received the usual delayed care.

They recruited 3 521 women aged 18 or older. The women who were randomised to the normal delayed care were discharged immediately after examination. The women who were randomised into a single-visit group stayed at the clinic until the result of their PAP smear was available. A large loop electrosurgical excision procedure was performed on the single-visit patients who had either a diagnosis of a high-grade squamous intraepithelial lesion (HGSIL), atypical glandular cells of undetermined significance (AGUS) or a suspicion of carcinoma. All other patients with abnormal PAP smears were referred to cytology clinics or received care outside the study.

The overall rate of abnormal PAP smear was 4.1%, and 1% of these abnormal smears showed high-grade lesions. In the single-visit group, the average visit time was 2.8 hours and the average time for delivering and processing the PAP smear was 66 minutes. Six months after randomisation 14 (88%) of the 16 single-visit and 10 (53%) of the 19 usual-care patients with HGSIL/AGUS had completed treatment. Half the women in the single-visit programme and slightly more than half the women in the usual-care programme with less abnormal PAP tests had completed treatment within 6 months. Overall, 36% of the women in each group returned for follow-up within a year. Those women in the single-visit group who had had high-grade lesions were more likely to come for a repeat PAP smear 12 months later than women with similar lesions in the usual-care group.

The researchers concluded that the single-visit programme was feasible and acceptable in this underserved population. Both these studies show that there are ways to provide acceptable levels of care to women in under-resourced areas of the world and will hopefully lead to wide-scale implementation of similar programmes and so reduce this unnecessary source of illness and death among women in the developing world.

Denny L, *et al. JAMA* 2005; **294:** 2173.
Brewster WR, *et al. JAMA* 2005 ; **294:** 2182.

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