

For Debate

There is no longer a place for underage cytology in genitourinary medicine clinics

In 1971, Cochrane and Holland¹ published a paper in which they highlighted the difference between a clinical consultation and screening procedures *we believe there is an ethical difference between everyday medical practice and screening. If a patient asks a medical practitioner for help, the doctor does the best he can. He is not responsible for defects in medical knowledge. If, however, the practitioner initiates the screening procedures he is in a very different situation. He should, in our view, have conclusive evidence that screening can alter the natural history of disease in a significant proportion of those screened.* In his recent paper, McCormick² goes further and states *that the degree of certainty should be much greater in matters of public health than in the conduct of the ordinary clinical consultation. We must have absolute proof of the cost (not just financial) benefit ratio before imposing a screening test on a patient.*

Before discussing the merits of cervical cytology in the under 20s, it should be pointed out that even in the older higher risk age groups there is continuing debate as to whether the cervical screening programme is the success story it is often claimed to be. Raffle *et al*³ published their results on 255 000 women served by the Bristol screening programme. The organisation was good and the population uptake had been high. Nearly 6000 women were referred for colposcopy and they concluded that this number was excessively high in comparison with the incidence of the malignancy they were trying to prevent. Their programme *is identifying 1 in 10 young women as "at risk" for a disease that is likely to affect one in many thousands. Our mortality data suggests that the effect of screening, even with good population coverage, staff training and quality assurance, is too small to discern in a population of 1/4 million women, yet both Iceland and Aberdeen (where clear effects from screening have been claimed) has smaller populations. We must simply live with the fact that we can never know for certain what contribution screening has made.* Finally, in a surprisingly frank summary, they conclude—*despite good organisation of the service, much of our effort in Bristol is devoted to limiting the harm done to healthy women and to protecting our staff from litigation, as cases of serious disease continue to occur. The real lesson from 30 years cervical screening is that no matter how obvious the predicted benefit may seem for any screening test, introduction should never take place without adequate prior evaluation of both positive and negative effects in controlled trials.* Understandably, this publication provoked a significant response in both the Lancet and in the lay press. As expected, much of the

response was critical. Anthony and Clarke⁴ actually commented that there was no reason to question the value or effectiveness of screening, especially in young women. In his book, *Follies and Fallacies in Medicine*,⁵ the late Petr Skrabanek commented that *it was ironic that criticism of cervical screening is received with much greater hostility than criticism of breast cancer screening. As for breast cancer, there are at least some randomised control trials suggesting that there may be a benefit to screened women, whilst for cervical cancer there are none.* With such uncertainty still surrounding the national screening programme which tries to confine itself to the accepted risk groups 20 to 65 year olds, it is of some concern that screening is still occurring in low risk groups, that is, the under 20s.

To put things in perspective, there are 96 000 cancer deaths in women per year in the UK, there are on average 4500 new cases of invasive carcinoma of the cervix registered in the UK, and the mortality runs at around 2000 per year; 85% of cases of invasive carcinoma of the cervix occur in women over the age of 35.⁶ In stark contrast, the incidence of invasive cervical cancer in under 20 year olds is 2 per million (Cancer Research Campaign 1994). Cervical cytology in women under the age of 20 is complicated by the fact that they have such a high incidence of HPV infection and, indeed, other STDs. The recent KC60 statistics⁷ showed attendance rates for wart virus infection of over 500 per 100 000 in women aged 16–24. The level of HPV detected by recent methodology is even higher in this young group. Burk *et al*⁸ reported a decreasing prevalence of HPV infection from 36% in women younger than 25 years of age, to 2.8% in women 45 years or older. In essence, young women have a huge burden of HPV disease and minor grades of CIN with an infinitesimal risk of invasive cervical cancer. Older women, that is, aged 25 years and older, in contrast, have a decreasing incidence of persisting HPV infection, coupled with an increasing incidence of more severe grades of CIN.⁹ It is obvious, therefore, that screening these young women simply unearths an enormous amount of irrelevant "pathology" and, of course, once these young women get referred for colposcopy, the inevitable biopsy often shows a degree of CIN. The reluctance of patients and staff to then adopt a "wait and see" policy inevitably results in some form of destructive treatment to the developing cervix.

There is some concern that the epidemiology of carcinoma of the cervix is changing and that new rapidly progressive carcinomatous

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types are appearing in young women.¹⁰ However, Silcocks and Moss,¹¹ in reviewing the available information, conclude that given the natural variation that exists in the duration of pre-clinical detectable phase, some cases are bound to occur with a short pre-clinical phase. A high level of screening in younger women simply means that such cases are more likely to be detected. They concluded that the evidence available was not enough to support the idea of a new phenomenon.

There are numerous publications pointing out the anxiety and distress caused by abnormal cervical cytology and the progression to colposcopy.¹² The psychosexual trauma involved in the repeat smear, inflammatory smears and colposcopy process could be even greater in adolescents coming to terms with their new found sexuality.

A recent commentary by Olamijulo and Duncan¹³ conclude that routine screening of teenagers just because they are sexually active cannot be justified. *The treatment of lesions destined for spontaneous regression is unnecessary and could be hazardous. Routine screening of teenagers is unlikely to make any significant impact on the morbidity and mortality from cervical cancer, but has a potential for overloading the screening programme.* Furthermore the fact that between 26% and 38% of children may potentially be infected by high risk HPVs at birth or early infancy questions the usefulness of sexual history as a screening marker.¹⁴

Genitourinary medicine clinics do see a considerable number of young attenders. In Chester and North Wales, on average, almost 20–25% of new female attenders are under the age of 20 years. The link with genital warts and wart virus infection seemed to be justification enough for widespread cervical screening and initiation of colposcopy in the late 1980s. None of this screening was evidence based, but yet again has almost become entrenched in genitourinary medicine clinic tradition and, as such, can be difficult to stop. Many col-

leagues, although agreeing that screening under the age of 20 years is almost certainly of no benefit, still allow the practice to continue in their clinics. Perhaps, again, it is the fear of litigation if screening is not done, but there are now enough reports in print to support a rational decision not to screen the under 20s. There would, of course, be situations where relevant symptoms would prompt a smear test.

In summary, there is little rationale in screening for a cancer of low incidence, with a test of low specificity in a young population, in so many, for the uncertain benefit of so few.

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