often results in many being discarded because of disagreement about the diagnosis among pathologists. This is important. Also, in contrast to the situation in the authors' "dedicated colposcopy clinic," the skill generally available varies. Not uncommonly, in patients whose smears show mild dyskaryosis biopsy specimens show only human papillomavirus infection. This is likely to result in coagulation or excision of much of the cervix or referral for regular colposcopic examination, each time with a smear being taken. Default by patients or overtreatment is then likely.

The authors accept that cytological surveillance is safe, and this seems the key issue. If several dyskaryotic smears are obtained before colposcopy they at least provide some assurance of an abnormality that is persistent and probably dysplastic in nature.

We have several concerns about the study by W P Soutter and Astrid Fletcher relating mild dyskaryosis to invasive cancer.[4] It seems unsatisfactory to include moderate dyskaryosis, which is generally considered to be a higher grade lesion, in surveys of mild dyskaryosis. The inclusion of borderline smears is worse, this term meaning only atypical smears that may indicate an invasive cancer. The inclusion of cases of microinvasive disease would result in an overestimate of invasive disease. Diagnosing microinvasive disease can be difficult, and pathologists tend to report it in biopsy specimens so that patients receive adequate treatment. We have found considerable variation among laboratories in the number of their reports of microinvasive disease. The quality of smears is also an unknown variable in the surveys cited. A poorly taken smear may contain only mildly dyskaryotic cells from the exocervix, but a well taken one may contain severely dyskaryotic cells from the endocervix.

These issues are still unresolved. We recently reported our findings in smears from women who later developed cancer.[5] A much larger study should provide reliable information on the cytological changes preceding cancer.

J H ROBERTSON
Consultant cytopathologist
BERTHA WOODEND
Clinical scientist

Cytopathology Department,
Laboratories,
Belfast City Hospital,
Belfast BT9 7AB

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Cytological surveillance will still be necessary

EDITOR,—The articles about cervical screening do not resolve the controversy about cytological surveillance versus immediate colposcopy for mild dyskaryosis.[1-4] The rate of reporting of mild dyskaryosis varies. Follow up studies are impossible to interpret without information about the rates of other grades of dyskaryosis as well as borderline and inflammatory change at the same centre.

Immediate colposcopy is no guarantee against the future development of cervical cancer and does not remove the need for cytological surveillance. Colposcopy itself may yield false negative results, and cytological surveillance is usually needed after colposcopy whether or not cervical intraepithelial neoplasia has been confirmed or treated. Also, cancer may develop after treatment of cervical intraepithelial neoplasia.

The six case studies compared by W P Soutter and Astrid Fletcher are not comparable.[4] Two included moderate dyskaryosis, and one was confined to borderline change; no fully invasive cancers (11 of 25 were microinvasive) occurred in the three studies confined to mild dyskaryosis. No invasive cancers occurred in the study by G Flannelly and colleagues.[2] A recent retrospective study showed mild dyskaryosis to be rare in the screening histories of women developing cervical cancer.[5]

The logical argument for carrying out cytological surveillance after a mildly dyskaryotic or borderline smear is obtained for the first time is that many of these changes represent human papillomavirus infection (often in young women), which may regress. The dividing line between human papillomavirus infection alone and with cervical intraepithelial neoplasia grade I is subjective on both histological and cytological examination. Deciding on management, even after colposcopy and biopsy, may be difficult but is less so once time has elapsed and the changes are known to have persisted for some months.

As with breast screening, avoidance of unnecessary biopsy should be an aim of the programme. Cytological surveillance should be safe so long as expected rates of moderate and severe dyskaryosis are identified. The challenge for those participating in cytopathology training and quality assurance is to make sure that these changes are not being missed or misinterpreted as mild dyskaryosis or borderline or inflammatory change. This should not be compensated for by defensive management, including overinvestigation and overtreatment, which is patronising to the women because it suggests that they cannot be trusted to attend for follow up.[3]

AMANDA HERBERT
Consultant cytopathologist

Southampton General Hospital,
Southampton SO9 1XY

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Regular follow up is the key

EDITOR,—The papers by W P Soutter and Astrid Fletcher and by G Flannelly and colleagues investigate management of women with mild dyskaryosis and conclude that immediate colposcopy for women who present with a single mildly dyskaryotic smear is preferable to a repeat smear test. In showing some improved efficiency in detecting high grade cervical intraepithelial neoplasia in these women by using colposcopy, these results agree with those of previous studies. The claim that this justifies immediate colposcopy of all women with mild dyskaryosis detected by cervical screening requires further examination.

The overall aim of the screening programme is to reduce the incidence of cervical cancer in the whole female population. None of these studies addresses the central question: whether colposcopy for all women with mildly abnormal smears is the most effective way to use limited resources within the current screening programme to achieve this objective. Furthermore, some studies cited by Soutter and Fletcher involved schedules of repeat smear testing with less use of colposcopy than the recommended policy of referral after a single abnormal repeat smear. Their conclusions are not directly relevant to current NHS guidelines. The results of Flannelly *et al* show that a policy of repeat smear testing results in less colposcopy, but leads to important default.

The decision analysis by Johnson *et al* that is quoted to support a low relative cost for colposcopic management is seriously flawed and its conclusions are best ignored.[3,4]

A more rigorous analysis of the overall use of investigations in the screening programme[5] suggests that if women attend regularly there is little difference between the strategies in reducing the incidence of invasive cancer. The median progression of precancer is relatively slow and there are many opportunities to detect precancer under either strategy. However, a strategy of immediate colposcopy requires two or three times as many colposcopic examinations, many of which yield negative results. The problem of default is important but the benefits of immediate colposcopy for these patients have to be weighed against the evidence that a high proportion of invasive cancer occurs in unscreened women and that substantial improvement in overall mortality can only come from improving population coverage of screening.

Concentration on women with mild dyskarosis alone can lead to the introduction of policies which may detract resources from other more important areas of the cervical screening programme.

DAVID JENKINS
Reader in histopathology,

Queen's Medical Centre,
Nottingham NG7 2UH

S GALLIVAN
Senior research fellow
C SHERLAW-JOHNSON
Research fellow

Clinical Operational Research Unit,
Department of Statistical Science,
University College London,
London WC1E 6BT

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Can findings be generalised?

EDITOR,—The paper by G Flannelly and others, and W P Souster and Astrid Fletcher debating surveillance versus immediate colposcopy for mild dyskaryosis are the latest in a longstanding debate.[12] Although the evidence is persuasive, will the conclusion that women should have immediate colposcopy be agreed by all? Fears of overtreatment, worries about laboratory differences, and a lack of perspective on women's views seem the biggest obstacles to a U turn in practice.

Most health districts still practice surveillance and will have to reconsider local policy if the National Coordinating Network changes the guidelines again.[3] Despite the efficiency of immediate colposcopy portrayed by Flannelly *et al,* many will fear the potential overload on their colposcopy clinics. These fears are justified because of the variation in local laboratories' interpretations of minor degrees of nuclear abnormality.

Immediate generalisation of these results may be inappropriate. In both studies the conclusions about managing mild dyskaryosis were based to