Most series of patients with splenic injury managed non-operatively have, however, relied on scintiscanning or computed tomography to confirm splenic rupture definitively. Patients with injury due to penetrating trauma, with associated injuries requiring surgery, with serious head injury, or with coagulation disorders should not normally be considered for non-operative management, and some authors include alcohol intoxication as a contraindication.¹²

Most surgeons prefer to monitor selected patients initially in an intensive care setting, and patients should be managed with a nasogastric tube, intravenous fluids, and blood transfusion (if necessary) and assessed by frequent clinical examination and serial measurements of packed cell volume. Progressive abdominal signs usually indicate continuing haemorrhage or additional injuries. Non-operative management should be abandoned if haemodynamic stability is not maintained or multiple transfusions are required. Luna and Dellinger suggested that the long term risks of transfusion (based on estimates of the risks of transmission of hepatitis but not including the risks of transmission of AIDS) may exceed those of splenectomy,¹³ but many patients managed non-operatively require no transfusion at all,⁸ and in those who do it is often because of associated injuries.⁶ Successfully managed patients are gradually mobilised and are usually fit for discharge after 7-10 days. They should be advised to avoid strenuous physical activity and contact sports for several months. Follow up investigations usually show complete healing of the splenic defect. The spleen is important in host defence against malaria,¹⁴ and non-operative management has been successfully employed in a Third World setting without the benefit of intensive care facilities, splenic scans, or computed tomography.¹⁵

Up to one quarter of adults with splenic injury caused by blunt abdominal trauma may satisfy selection criteria for non-operative management. Such management is successful in most cases, thus preserving splenic function. Such a policy must not, however, put any patient at risk; most adults with splenic rupture are still best served by prompt laparotomy, with spleen preserving surgery in suitable cases.

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Cervical samplers

Most important variable is probably the operator's skill

The first cervical sampler for cytological diagnosis of cancer of the cervix was a platinum loop, used by the Romanian pathologist Babes in 1928.¹ Cervical screening developed from the demonstration by Papanicolaou and Traut in 1941 that malignant change in the cervix could be diagnosed by examining cells aspirated from the vagina.² In 1944 Ayre suggested improving the accuracy of the test by passing a speculum and aspirating mucus from around the external os.³ Later he advocated "surface biopsy" of the cervix, using a wooden spatula to sample small localised cancer lesions that might be invisible to the naked eye.⁴ This spatula, which bears his name, has a hook end and a rounded end. The hook end is for sampling the cervixes of nulliparous women and cervixes where the squamocolumnar junction is inside the endocervical canal. The rounded end is for sampling eroded and lacerated cervixes and those of parous women.

Trials comparing these methods have found that scraping with an Ayre spatula is consistently better than the vaginal aspiration (false negative rate 0-16% compared with 8-69%).⁵ Combining both procedures reduced the false negative rate still further. The successful screening programmes in British Columbia, Iceland, Aberdeen, and The Netherlands all used the Ayre spatula, and nearly 50 years after its introduction it is still in use. Increasing concern about invasive cancer being found after negative smear test results led to the development of many different cervical samplers,⁶ including tampons and

sponges,⁷ various modifications to the hook end of the Ayre spatula in wood and plastic,⁸⁻¹¹ a multivariate spatula,¹² and brushes.^{13 14} The absence of good comparative trials of many of these samplers makes assessment of their relative merits difficult.

Many studies use the presence or absence of endocervical cells in the cervical smear as the sole measure of the adequacy of the sampler, although considerable disagreement exists over the usefulness of this criterion.¹⁵⁻²⁰ Few would disagree with Koss that the only smears that can be judged with certainty as adequate are those that contain abnormal cells.¹⁵

One of the inherent problems in comparing different cervical samplers is the wide variation among people in their ability to obtain representative samples. In experienced hands false negative results of sampling with an Ayre spatula are nearly all due to small lesions occupying two quadrants or less of the cervix. These are usually cervical neoplasms grade I or II.²¹ Two studies from genitourinary clinics suggest that in young women, when the smear takers are experienced, the type of sampler does not make any difference to the detection rate of abnormal smears.^{22 23}

Several studies have shown that two samples taken at the same time are better than one, whether the same or different samplers are used.^{24 25} The effectiveness of the cytobrush, an endocervical brush developed by Stormby,¹³ when used in conjunction with either an Ayre or a modified Ayre spatula,

has been compared with the effectiveness of those spatulas used either alone or in combination with a cotton swab.²⁶⁻³¹ All the trials showed that the endocervical brush produced more smears with endocervical cells and concluded that double sampling was an improvement. The use of an endocervical brush on its own, however, is not recommended. One study, which did not control the method of sampling chosen by the smear takers, suggested that combining an endocervical brush with a modified Ayre spatula increased the rate of detection from 0.36% to 1.04%. The diagnosis of adenocarcinoma of the cervix, which may be missed in 40% of cases,³² was also improved. While finding dyskaryotic cells is more likely in smears containing endocervical cells, so too is atypia, particularly when an endocervical brush is used. Other workers quote a doubling of the proportion of atypical smears—from 7.3% to 14.9%—resulting in the need for more repeat smears.¹⁷

Recent trials of two new samplers, the Aylesbury spatula¹⁰ and the Cervex brush,³³ have shown that an increased yield of smears with abnormal cells may be achieved by taking only one sample. In a controlled study of 17 781 smears comparing the wooden Aylesbury spatula with the Ayre spatula—in which the experience of smear takers varied widely—22% more smears with dyskaryotic cells and fewer smears with borderline results were obtained with the Aylesbury spatula and the cellular quality was significantly improved.

Vooijs reported a smaller proportion of unsatisfactory smears from the Cervex sampler than the Aylesbury spatula (2.4% v 4.8%), but no mention was made of any difference in the proportion of smears with dyskaryotic cells obtained.¹⁴ A small study comparing the Cervex sampler with the Ayre spatula also showed that the Cervex sampler improved the quality of the smears and the yield of smears with atypical squamous cells.³³ A study comparing five methods of sampling found that the Cervex sampler improved the yield of smears containing endocervical cells and smears suggestive of cervical intraepithelial neoplasia grade III when compared with the modified Ayre spatula with or without a cotton swab. Best of all was the combination of the Ayre spatula and a cytobrush or the two ends of the cytopick.³⁴

Though the skill of the person taking a cervical smear is undoubtedly the most important factor influencing its accuracy, evidence exists that when compared with the Ayre spatula samplers such as the Aylesbury and the Cervex can improve the yield of abnormal cells when used by those who are less experienced. Two samples taken together are better still, but whether this is cost effective in a screening programme has yet to be shown. In the mean time more effort must be made to increase the skill of those who take smears. Though the ultimate responsibility for the adequacy of the

smear sample lies with the person taking it, all cervical smear reports should include a comment on whether the sample contained adequate cells, with particular reference to recognisable material from the transformation zone, where most cancers of the cervix originate. This will enable smear takers to monitor and try to improve their sampling ability.

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Management in the NHS

Getting there, but the centre may need decimating

Napoleon said that the English were a nation of shopkeepers, but few grocers can have had as much influence on British public life as Sir Roy Griffiths, deputy chairman of the supermarket chain J Sainsbury, through his reports on management in the NHS and community care. His report on NHS management was produced seven years ago, and earlier this month he had an opportunity to reflect on how his reforms had turned out when the Audit Commission asked

him to deliver its third annual lecture. Overall, he was upbeat, but he also had much to criticise.

Doctors have understandably viewed the growth of NHS management with deep suspicion. More managers and more computers inevitably, they think, mean fewer resources for direct patient care in a system with long waiting lists and much unmet need. Doctors also see deep differences between the NHS and the business world whence Sir Roy and his