

These arrangements for skill, executive authority, and accountability, which may serve as a model for other countries, now need urgent enhancement in the light of the two new reports. The increasing recognition and demands on the infection control doctor may make it impossible for a single handed microbiologist in a district general hospital to provide a 24 hour service, which may be a further reason for implementing the Royal College of Pathologists' recommendation for a second consultant microbiologist in larger hospitals. Similarly, a single infection control nurse may no longer be adequate for districts with 750 or 1000 beds. The requirement in the United States is for one nurse for every 250 beds.

The chief medical officer proposed in his report a new post of district control of infection officer, whose job is distinct from the infection control doctor and is "to coordinate the work of control of infection between hospitals, and between hospitals and the community."<sup>7</sup> The district control of infection officer would be accountable managerially to the newly proposed director of public health, who is in turn accountable to the district general manager. As the Cooke report points out, "the role of the infection control doctor as

the person previously responsible for infection control within the hospital remains unaffected by the chief medical officer's report." How many infection control doctors will wish, given the resources, to extend their skill into the community and take on the additional function of the district control of infection officer remains to be seen.

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## Amblyopia

### *Neither screening nor treatment is satisfactory*

Amblyopia, defective visual acuity in a healthy eye that cannot be made normal with spectacles, is rarely due to congenital abnormalities but is mostly associated with squint or an abnormal refraction, or both. The traditional treatment with spectacles or occlusion does not produce satisfactory long term results,<sup>1</sup> probably because treatment is started too late. Hence there have been many pleas for more rapid referral of those who squint and earlier identification of "straight eyed" amblyopic children before they start school, when they are screened. Nevertheless, the school screening programme for vision is not satisfactory,<sup>2,3</sup> and an earlier screening programme at the age of 3½ was no more effective in producing better results.<sup>4</sup>

We do not fully understand how amblyopia develops. Squint has always been thought to cause amblyopia, and it has long been accepted that an early onset of the squint or any delay in treating it leads to more severe amblyopia.<sup>5</sup> Nevertheless, these suggestions have never been confirmed (R M Ingram *et al.*, unpublished data).<sup>6</sup> Anisometropia, an undefined difference between refraction of the two eyes, is the abnormality most frequently associated with amblyopia, particularly in "straight eyed" children. Most believe that anisometropia causes the amblyopia; but why is it not the other way round?<sup>7</sup> We do not know.

Though few question the use of occluding one eye in treatment, even 20 years ago Tour observed that "after using occlusion for two centuries, we still do not know which eye to occlude, with what or for how long."<sup>8</sup> Certainly the value of occlusion has never been assessed scientifically. It is highly successful in some cases, but we have no means of predicting which ones. All too often the visual acuity of the amblyopic eye improves only to fall again when occlusion is stopped. But any attempt of a scientific assessment of occlusion will be difficult on ethical grounds.<sup>1</sup>

Severe amblyopia (6/24 or less) that persists after occlusion is associated with abnormally hypermetropic (or rarely myopic) defects in infancy.<sup>9</sup> Unfortunately correction of these

abnormalities with spectacles from the age of 1 year did not alter the subsequent incidence of squint or severe amblyopia.<sup>10</sup> Possibly, however, treatment from the age of 6 months might reduce the incidence of severe amblyopia but not that of squint (R M Ingram *et al.*, unpublished data).

So the conclusion must be the familiar one that further research into the natural course of amblyopia is required before we can suggest any new screening programme for detecting it or any new form of treatment. But at the very least, failure to observe the rules<sup>11</sup> for new screening tests will postpone research on more productive lines.<sup>12</sup> Once a screening programme has been accepted by both the public and clinicians it is difficult to re-evaluate it. Another aspect that needs agreement is the level of amblyopia that needs treatment, for, though this may not impede education,<sup>13</sup> it may prevent sufferers from entering some occupations.

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