Sunny 57

SCREENING BLOOD DONATIONS FOR HEPATITIS C: ECONOMIC APPRAISAL: NOTE BY ECONOMIC ADVISERS' OFFICE

1. Before appraising screening, we need to go back a step to look for alternative more selective methods which could reduce much of the burden of the disease transmitted by blood products at much lower cost.

2. The most obvious policy would concentrate on haemophiliacs whose risk of infection is greatly increased because (a) they receive more transfusions and (b) their blood transfusions, for reasons not made clear in the papers, consist of pooled blood from many donors. One policy option is simply to discontinue pooling. This would reduce the risk of infection very markedly. If the number of donors in a pool is n, the reduction in risk is $(1 - {}^{1}/_{n})$: with 10 donors in the pool, the reduction would be 90%. Against this would have to be set the lost advantages of pooling, whatever they are, expressed in money terms.

3. A related option, not necessarily an alternative to pooling, is to screen all blood for haemophiliacs because their dosage puts them at higher risk. The first step to establishing the cost-effectiveness of such a selective policy (and consequently of a policy for treating all other blood) would be to determine the proportion of the burden of hepatitis C accounted for by haemophiliacs.

4. A third option is to take advantage of the indicators for risk of communicable hepatitis C among donors. Dr Elias's letter suggests that the test can only detect contaminated blood from acute or chronic sufferers from liver disease. Surely a large proportion of this group could be eliminated from the donor pool, if donor centre staff questioned them about liver disease - and then in a possible second stage tested their blood to avoid eliminating those who whose liver disorder was not due to a disease communicable by blood transfusion. It is difficult to believe that anyone suffering from acute hepatitis would feel well enough to give blood anyway.

5. ~~Viewed against these more selective options mass screening would appear as a less attractive option.~~ ~~Dr Gunson's~~ paper ACSVB 5/6 sets out a good framework for an economic analysis and provides a good checklist of benefits, but it would be difficult to carry out the conversion into money terms even making working assumptions about incidence. Essentially we need information on patients' treatment careers, employment experience and life expectancy with and without a transfusion-induced infection. Data collected routinely may allow us to make an estimate of the burden of the disease in any given year and we can the make use what

information is available on the proportion due to blood transfusion. Routine data are in the form of number of hospital stays and average length of stay - they cannot be used to trace treatment careers, and it would take some weeks to extract this data.

6. Alternative sources of data may contribute to the assessment. One method of assessing the effect on incidence would be to look at incidence before and after the introduction of screening in ~~the US~~ any country which has already introduced such screening and adapt it to take account of the ~~lower~~ suggested proportion of infected donors in this country.

7. ~~Perhaps~~ the next step, concentrating on screening, would be to try ~~to flesh out Dr Gunson's~~ framework ~~to get a feel for what~~ data is ~~most critical~~. A procedure of this kind can also show whether a good economic performance lies outside the scope of any likely values of the uncertain factors.

elaborate on

It may be necessary to give 2 different views on the ... cost / ...