BLOOD PRODUCTS LABORATORY (BPL): POSSIBLE TAKEOVER BY INDUSTRY

INTRODUCTION

1. Ministers are aware of the need to expend substantial sums in the long term in order to bring the BPL up to acceptable standards. The cost could be of the order of £25m, plus the cost of necessary developments in Regional Transfusion Centres, if we aimed to meet the ideal of self-sufficiency in blood products, saving imports currently valued at about £10m per year. The costs would be lower (say £10m for BPL) if we adjusted our sights to the likely domestic supply of plasma (see paragraph 12) or relied more heavily than planned on the Edinburgh laboratory.*

2. MS(H) has authorised short-term upgrading of the BPL at a cost of £1.3m, which is expected to enable a modest increase in production. Officials were asked to explore the possibility of a British pharmaceutical company rebuilding the facilities and manufacturing the blood products.

3. This paper reports on our discussions with industry, and seeks decisions on proposals made by Beecham Pharmaceuticals Limited.

THE FIELD

4. In our judgement only six British pharmaceutical companies could conceivably have the resources to take on the BPL. They have all been sounded.

5. Wellcome, Glaxo, ICI, Fisons and Boots are not interested. This is because they do not have the resources available; or because they would regard it as an unacceptable diversion of management and financial resources from other, higher priorities; or because they fear that arrangements might become the subject of political controversy (profits being made out of freely donated blood).

6. Beecham Pharmaceuticals however are definitely interested in principle. After exploratory talks an outline package has been drawn up which could suitably provide the basis for negotiations with them.

* We are (a) exploring the possibility that the Protein Fractionation Centre (PFC) at Edinburgh might be able to meet some or all of the needs of northern English Regions; and (b) considering whether BPL and PFC should plan to meet the needs of Northern Ireland.

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BEECHAM'S PROPOSALS

7. The outline proposals are at Appendix A. No doubt they represent only a starting point for detailed negotiations, but essentially they are that Beecham should buy the BPL and initially - perhaps indefinitely - run it for us as our agents, being paid on a fee basis for so doing. NHS plasma and the resulting products would be "free", and essentially the present system would continue. But Beecham would have the option to terminate the contract and either get out of the business altogether or set up in business as a commercial supplier of blood products.

8. There is little doubt that the latter is their long term aim. It seemed clear in our discussions with them that their objective is similar to that of foreign companies which have approaced the Department, namely to set up a factory in the South of England to import blood plasma and export blood products. This might not be worth doing unless the factory also met NHS needs, but it may be guessed that the import-export business would provide the main profits.

9. We also formed the impression that Beecham are seeking to acquire ready-made expertise in blood fractionation in connection with products other than those made by BPL. They know how to use blood fractions for other purposes, but not how to make them.

10. There are many points in the proposals which would need to be clarified and expanded upon in the course of detailed negotiations. For the purpose of this paper it will be enough to discuss the main considerations affecting a decision whether to proceed to such negotiations.

CONSIDERATIONS

11. Attitudes

a. General government policy favours industrial/commercial involvement where possible, but the situation is untypical because of the voluntary donation of blood and the (distant) objective of national self-sufficiency in blood products. The Minister is on record, recently, against commercialization of blood and its products, against international trading in blood and against paid donors.

b. For these and other reasons all our advice from the NBTS is strongly against commercial involvement. Some of this advice contains a strong element of commitment to a comprehensive NBTS within the NHS, but it is

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not to be discounted for that reason. Those concerned also see major risks (dealt with below) which we cannot confidently say can be avoided. Our non-NBTS specialist advisers also see these risks and are doubtful about the general wisdom and about the economics of commercial involvement.

c. The BPL staff are opposed to commercial involvement because they consider that their careers will not benefit from assimilation by a commercial company - though this cannot be true of all of them - and that commercial involvement will, in the long run, be harmful to the BPL and NBTS. ASTMS is mounting a major campaign against it. "World in Action" are preparing a programme prompted, they have said, by ASTMS, and seem sympathic to the staff's position - though we cannot of course be sure.

d. The attitude of donors will be crucial to future plasma supply, and is not accurately known. But we cannot assume that they do not know or care about plasma and its fate. The NBTS leaflet on this subject is in greater demand than any other. The current National Heart Hospital case will not only have stimulated interest, but has caused some donors to threaten withdrawal of donations.

e. Also important is the attitude of employers. Many donor sessions are held in working time and on firms' premises. We are already losing sessions because of economic pressures and the position may be even more difficult to sustain if firms believe they are contributing to another firm's profits.

12. Plasma supply

On present estimates we need to increase the amount of available plasma from about 68,000 litres now to over 400,000 by the mid-1980s; and seem likely, at best, to achieve rather under 300,000. The view of all our advisers is that there is a very real risk - though we cannot quantify it - that commercialisation would make it difficult to increase, perhaps even to maintain, the supply of plasma from volunteer donors. See covering minute.

13. Technological issues, including hepatitis

a. No commercially purchased plasma will carry as little hepatitis risk as our own. It is impossible to screen for some forms of hepatitis. Infected plant cannot be readily disinfected. It follows that the same plant cannot be used for NHS and non-NHS plasma unless we are prepared to accept an increased risk of infection of NHS material. (The extent of such risk is not known.) The logical conclusion is separate plant for NHS and non-NHS plasma. The

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degree of duplication would be very substantial. Beecham are willing to provide this - partly, we think, becuase they do not yet understand what would be involved. They have made it clear that they would pass the full cost on to us. This would not necessarily be more expensive than building our own factory for NHS plasma, but it would limit economies of operation which might otherwise have been a major attraction of a commercial solution.

b. A substantial attraction of commercial involvement is that it passes to the firm the risk that technological change (eg genetic engineering) will make a traditional fractionation plant obsolete. But the firm will no doubt seek a return which reflects this.

c. Prima facie a commercial solution would open up possibilities of cost-benefit in research and technological development. This however depends the interests and skills of the company. Moreover BPL already has links with a number of commercial companies - including development contracts - and there is a risk that by being too closely tied to one company we might in fact lose out on balance. (One company has already expressed to us considerable apprehension about a possible industrial takeover.)

14. Commercialisation/international trading

a. It is very doubtful whether any company would be prepared to invest simply to fractionate NHS plasma, particularly in view of the uncertain supply. The foreign firms already in the field would probably want to operate commercially straightaway, buying all our plasma and supplying us from common stock. As noted in para 7, Beecham are willing to run the laboratory as agents for a period (a learning period?) but have written into their "prospectus" an option to go fully commercial thereafter. They are not willing to consider a mixed arrangement, ie agency for NHS and otherwise commercial, though there would be some special pricing arrangement, as yet not worked out, for NHS plasma and its products.

b. Assuming no paid donation in this country, commercialisation implies one or more of the following:

(i) importation of commercial plasma for fractionation here for our use: logically this is no worse than importing ready-made products; but it may look worse.

(ii) importation of commercial plasma for fractionation and re-export: in principle this need not be offensive to international objectives if products were re-exported to the country of origin; but in practice it would not work like this; the issue is whether we should object to our firms doing what other countries' firms do.

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(iii) collection of plasma via NBTS with the deliberate object of marketing a full range of products abroad; at present this is so unrealistic that we can ignore it; but it would not in the Department's view be acceptable - though outlooks might eventually change.

(iv) sale abroad of "surplus" fractions from NHS plasma: this seems unobjectionable, provided the NHS shares the benefit; but some donors might disagree.

c. Any exclusive deal with a British company runs the risk of being challenged as a breach of international trade agreements by foreign companies who (collectively) stand ultimately to lose business in the UK currently valued at £10m a year. We do not believe, however, that their case would be very strong.

15. Timescale

Even apart from our cash flow problems, there is little doubt that a commercial firm would build a new BPL quicker than we could, given our need to follow established public expenditure control procedures. Their very speed might even be an embarrassment. RHAs are unlikely to be able to build up the plasma supply quickly enough.

16. Economics/Funding

a. A financial appraisal is attached to the submission (Appendix C). This shows that investment from NHS resources would be a very good buy. However we have the difficulty of finding the capital. The only feasible source for redevelopment with public funds would be health authorities' capital allocation. Our general policy is to reduce the level of health capital pre-emption (14% in 1980/81), which RHAs consider undesirably high. Pre-emption of a further £25m (or even £10m) to redevelop BPL would need to be discussed in detail with RHAs. It would however not necessarily be unacceptable to them, though RHAs will themselves have to invest to increase the plasma supply.

b. A commercial solution saves capital. The company will however expect a return, possibly a substantial one in what is a high risk business. We have no means of knowing whether improved management would lower costs sufficiently to offset this, or whether the company is likely to be willing to make most of its money from the non-NHS side of its operations. But Beecham will want at least a normal return - ie they will not "subsidise" the NHS from other business. BPL's present costs are very low compared with international prices, but this may not be much of a guide. It may reflect the poor standard of the BPL facilities; and profit margins elsewhere may be very high. The guess of

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our best independent advice is that we shall lose out on revenue, possibly substantially, unless the advent of a British company into the commercial market (on which we are likely to have to rely to a considerable extent for some years at least) were to reduce the costs of free-market products significantly more than the existence of BPL does now.

17. Staffing

The BPL presents a narrow scientific and career base and has limited attraction to staff. It is possible that integration with a commercial company would have a beneficial effect here, but it is difficult to know without more information about the company's general research and development programme. BPL does not have a close scientific affinity with any of Beecham's known projects. The present BPL staff do not see potential benefit (para 11(c)) and some are fearful for their jobs - not, we think, without reason though we would seek to negotiate transfer terms for all staff.

18. Experience in other countries

a. There are some unhappy experiences of commercialisation in other countries, most notably and most recently the break-up of the Travenol/American Red Cross partnership. As we understand it Travenol negotiated until they thought they had the ARC "over a barrel" and then tried to jack up the terms. This experience is a potent influence on some of those who oppose commercialisation here. Supply Division believe however that our special relationship with the drug industry in this country would enable us to avoid such difficulties, at least as regards a British company. It is suggested that we should ignore this aspect for the purpose of our immediate decisions - but watch it carefully in any negotiations.

b. Some other countries, eg Canada, which have in the past relied on commercial fractionation are moving towards non-commercial facilities because of the operational problems of co-ordinating plasma supply from voluntary sources with commercial fractionators. We would face a number of problems in this area, as Appendix A makes clear.

19. Other factors

There is a host of other factors - planning permissions/suitability of Elstree site for a commercial operation; the licensing position; patents; staff transfer arrangements; valuation of capital resources; our right to repurchase the site and laboratory in certain circumstances; approval of development plans; future of the Oxford Fractionation Laboratory. The proposal could eventually founder on one of these, but they are secondary at present.

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20. Beecham

a. As previously noted we do not know Beecham's objectives, but we believe their chief object is to get into the international blood product market. It is possible that they are also interested in technological spin-off, but the BPL would not obviously help any of their known major development programmes.

b. Beecham's existing expertise is not very relevant to the particular problems of developing and running a plant for protein fractionation (as opposed to molecule processing), nor in handling a process stream which may contain a dangerous human virus in a protein medium which cannot in general be sterilised. They would have to learn all this, mainly from BPL and our advisers. Thus their general chemical engineering and pharmaceutical manufacturing and construction expertise is not a particularly strong argument in their favour. They do however have proven management capacity, and the ability to learn and develop new skills. We should have to set up a management mechanism if the BPL were developed with public funds (see paragraph 25 below).

c. Beecham have shown themselves ready to agree (as other companies might not) on two key elements - separate fractionation of NHS and foreign plasma and no commercial collection of plasma, or paid donors, in this country. While wanting the option of going fully commercial after a period of acting as agents, they have at least expressed themselves willing to discuss arrangements designed to deal with the sensitivies about trading in blood. (It is however doubtful how far any arrangement could overcome these). They will obviously negotiate hard on terms, but so would any other company.

d. Against Beecham is:

(i) it is likely that they want the NHS primarily to learn on. They may may not see it as the top priority for their attention once they develop a wider business. This is however a risk with any company - and we would be in worse case with the established fractionation companies. We think we can pretty certainly rely on Beecham to do at least a reasonable job.

(ii) they have a reputation for being very "hard-nosed".

(iii) Medicines Division have a low opinion of them, as meeting only minimum manufacturing standards.

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None of this amounts, in our view, to good reasons for not using them - subject to negotiating satisfactory terms - assuming that the implications and risks inherent in a commercial operation are acceptable. Indeed they probably represent as good a commercial bet as we are likely to get.

OPTIONS

21. Following are the main courses of possible action as the Department sees them:

a. Offer to enter into detailed negotations with Beecham, but lay down conditions to safeguard us (and the community) against the possible dangers.

b. Approach foreign companies to see if they make a better offer.

c. Look to other agencies, eg the Red Cross or NEB.

d. Redevelop the BPL with public funds, in a way and to a scale still to be determined.

e. Carry on with the existing BPL, upgraded to the extent at present planned.

22. Course b is unlikely to provide any major advantages over negotiation with Beecham. Informal discussions with foreign firms have indicated clearly that they wish to set up operations similar to (or less acceptable than) the one planned by Beecham.

23. We have had some tentative conversations with the Red Cross and NEB (course c), and will pursue these if Ministers decide against the Beecham option. But there is no reason at this stage to think that either agency will be able to help us in solving the major problems of redeveloping the BPL.

24. Course e might have to be pursued for an indefinite period if we withdrew from discussions with Beecham and decided on options c or d. But it would mean continuing to operate a sub-standard factory and commit the NHS to continuing substantial imports of blood products. Ministers have already said that the BPL will be redeveloped. Course e cannot therefore be more than a short-term option.

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25. The difficulties with course d are those of finding the necesassary capital and of providing satisfactory management for the new laboratory. Funding is considered in paragraph 16 above. Officials have given tentative consideration to possible management arrangements. Our present arrangements are not satisfactory. One possible alternative would be to create a special management committee within NW Thames RHA, to include people with commercial and other relevant experience. Our soundings have confirmed that officers of the RHA do not regard this as a non-starter, though neither they nor we regard it as ideal. Full consideration of the management problem has been deferred pending a decision on the way the BPL is to be redeveloped, but it would be idle to pretent that a fully satisfactory solution will be easy to find.

26. One permutation within course d is a smaller and cheaper redevelopment of BPL. This would require either a reduction in total UK output or realisation of the full potential capacity of the Protein Fractionation Centre (PFC) at Edinburgh so that the combined increased production of the two centres would be sufficient to meet UK needs. SHHD officials are in favour of the second possibility in principle, but there are a number of barriers to PFC realising its full capacity, including a continuing inability to reach agreement with the unions on a shift system of working. This problem has seriously restricted output since its opening six years ago. The question will need to be resolved before BPL is redeveloped, whomever by. It is mentioned here because it offers the possibility of closing the time gap between a NHS and a commercial development, as well as reducing the investment required.

CONDITIONS

27. If we are to enter into detailed negotiations with Beecham we suggest laying down critical conditions for handing over the BPL. We would make these clear to Beecham and would not depart from them. Suggested conditions are set out in Appendix B. Whilst Beecham's initial reaction is that such conditions are not insurmountable, it is doubtful whether negotiations could succeed unless we are prepared to agree to the option described in paragraph 7 above, which, in the longer term, would enable the company to supply blood products to the NHS on a commercial basis.

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APPENDIX A

Revised 13/10/80

OUTLINE OF PROPOSALS BY BEECHAM PHARMACEUTICALS FOR THE OPERATION OF THE BLOOD PRODUCTS LABORATORY

1. The objectives in operating the Laboratory should be:
   (a) to make self-sufficient in blood fractions such part of the UK (likely to constitute at least Wales and the greater part of England) as will be indicated by DHSS;
   (b) to maintain and develop a major fractionating unit for the benefit of the British patient, the British medical service, the British economy and for those who work in the unit;
   (c) to establish in the UK expertise and facilities comparable with the best in th world;
   (d) to develop technology for the rapid progressing of major discoveries which are anticipated in the next decade; and
   (e) to develop export potential for the benefit of overseas patients and medical services and to reduce overall costs by utilising maximum capacity.

2. The Regional Blood Transfusion Services would continue voluntary collection of blood and would supply plasma and other materials to BPL. The supply would be planned not to exceed the quantities needed to meet demand in the defined geographical area.

3. Beecham would contribute:
   (a) expertise in construction and operation of sterile buildings and facilities;
   (b) expertise in pharmaceutical manufacturing operations;
   (c) business and administrative expertise;
   (d) the opportunity for the Laboratory to benefit from Beecham's original research projects; and
   (e) the opportunity for the Laboratory to use Beecham's international organisation to develop the export potential of its products in due course.

4. The Laboratory would contribute its existing technical know-how and expertise in the preparation of blood fractions.

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5. If the land at Elstree is suitable for development (load bearing qualities, planning restrictions, availability of services, environmental considerations, etc), Beecham would purchase from the DHSS the site at an agreed valuation, either at once or on completion of the new Laboratory. (Timing and terms to be negotiated.) DHSS would continue to be responsible for the modifications to be made to the existing buildings to enable them to be used until new facilities could be constructed; and would pay for the modifications. DHSS would be responsible for ensuring that those buildings used previously for pathogens were where necessary made safe and ready for demolition. DHSS would also ensure that any vacant houses which are close to the operating units, and any which subsequently became vacant remained so.

6. As soon as possible Beecham would become responsible for the operation of the BPL, whether or not they immediately acquired the site and existing buildings. The staff would become Beecham employees. The future of the operation at Oxford would need to be determined.

7. After an initial appraisal phase, Beecham would progress, at high priority, the provision of new facilities to be constructed, preferably at Elstree, to meet the agreed objectives. It is hoped that these new facilities would be operational within three years. All investment relating to the new facilities would be a charge to Beecham.

8. Until such time as Beecham exercised the option under paragraph 11, Beecham would act as agents for the DHSS, processing plasma supplied by the Transfusion Service (or from alternative sources - see below) to produce fractions as required by DHSS. During the agency phase (and possibly thereafter - see paragraph 12) the plasma supplied by the Blood Transfusion Service would be at no cost and the product fractions would be returned to the NHS at no cost. If, after the new Laboratory had been provided, plasma supplies had to be supplemented by commercial purchases, the cost would be charged to DHSS. Beecham would be prepared to process commercially purchased plasma in separate plant if and to the extent required by DHSS. (This question to be decided before the new Laboratory was designed.) Beecham would not themselves collect plasma from donors, or obtain plasma which to their knowledge was derived from donations in the UK (other than via the NBTS), except with the written agreement of DHSS.

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9. The scale of output would be planned to satisfy demand in the specified area of the UK. In the event of a surplus, either generally or of particular fractions, Beecham would either market the surplus abroad or, if this is not acceptable in principle to DHSS, return it to DHSS for disposal. /Nb The position of private hospitals in the UK will need to be considered./ If the surplus were marketed, DHSS would receive a credit, on a basis to be agreed, in respect of the plasma supplied.

10. Beecham would be remunerated during the agency period on a basis to be negotiated, but designed to cover the cost of operating the facilities at Elstree (including, in the case of investment by Beecham, depreciation) and to give a fair return for their management expertise and investment. This return might consist of

(a) an agency fee related to the notional annual valuation of the laboratory's output, or

(b) a fee per unit of output, or

(c) a payment as a return on capital invested, or

(d) some combination of the above.

Different bases of remuneration might be adopted during the different phases of development.

11. After a period of acting as agents for DHSS, Beecham would have the option to terminate the agency and to operate as a commercial enterprise. They would however guarantee to give first priority to meeting demand in the specified area of the UK and would continue to observe the conditions in paragraph 8 above in respect of the processing and use of NBTS plasma, and plasma from other sources. Beecham would operate the laboratory within Beecham Pharmaceuticals, UK Division, and the operation would be covered in the Annual Financial Return to DHSS.

12. Details of the commercial operation would require further discussion, but it might be on the following basis:

(a) for operational purposes Beecham would deal direct with the NHS;

(b) the NBTS would supply plasma to Beecham either at nil cost or at "handling" cost (ie including no element in respect of the plasma itself). Beecham would supply products derived from NHS plasma to the NHS at prices negotiated with DHSS and reflecting the nil or lower cost of NHS raw material;

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(c) to the extent that NHS demand for products was not satisfied from NHS plasma, Beecham would compete for custom with other commercial suppliers;

(d) to secure equity, and the continued supply of plasma, Beecham would make NHS-derived short-supply products available in the first instance to Health Regions pro rata to the quantity and quality of plasma supplied by them.

/Agreement would be needed whether NBTS or other plasma was to be used as the basis for marketing "surplus" fractions./

13. If Beecham did not take up the option in 11 above, the agency agreement would have a life of twenty years with provision for a review at five, ten and fifteen years. The DHSS would need to include in a contract safeguards regarding the transfer of the BPL back to the DHSS if, at the review dates, Beecham wished to give up its management.

14. DHSS would also have an option to repurchase the site and the Laboratory at a price to be agreed with the District Valuer should Beecham at any time be unwilling or unable to continue manufacture of blood products on at least the scale envisaged in the original agreement.

15. Beecham's intention would be to retain in the new Laboratory at least the present range of activities undertaken at BPL. However in view of the provisions of paragraphs 13 and 14 above, DHSS would have an opportunity to comment on the design brief and sketch plans for the new Laboratory.

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APPENDIX B

SUGGESTED CONDITIONS TO BE ADHERED TO IN ANY NEGOTIATIONS WITH BEECHAMS

1. The new plant must be of sufficient fractionation capacity to meet the forecast demand for blood products for England and Wales [and NI] taking account of the expected capacity of the Protein Fractionation Laboratory, Edinburgh, to meet part of this demand.

2. Adequate fall-back arrangements must be provided within the plant.

3. The formal licensing and other requirements of the Medicines Act must be satisfied both in relation to the safety, quality and efficacy of each product and to the operations, premises, equipment and other arrangements relating to its manufacture.

4. The manufacturer must produce the complete range of products currently made by the BPL, in the quantities required by the UK market. Production targets for each product, linked to stated quantities of starting plasma, must be agreed on with the Department.

5. The manufacturer must be prepared to make all possible efforts to improve the yield of Factor VIII, including the manufacture of lower purity products such as small-pool freeze-dried cryoprecipitate if necessary.

6. New technology acquired from the existing BPL must remain the property of the Crown.

7. The quantity and quality of the plasma to be supplied by the NBTS to the manufacturer must be agreed between the manufacturer and a designated body within the NBTS.

8. The manufacturer must undertake not to remunerate UK donors by any means, whether directly or by purchase of UK plasma from another agency.

9. The manufacturer must undertake not to set up plasmapheresis or other donor centres (even for non-remunerated donors) without specific authorisation from the DHSS.

10. Imported plasma from paid donors must not be processed in the same plant as UK plasma.

11. Fractionation of imported plasma from overseas unpaid donors (i.e. voluntary transfusion services in countries where the risk of hepatitis is low) would be permitted provided that the UK and imported plasma and the finished products were to be kept separate at all stages, including separate quality control procedures.

12. All possible steps must be taken to avoid contamination of UK products by any imported material.

13. There must be no sale of UK-derived products outside the UK without specific authorisation.

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FINANCIAL ANALYSIS

1. The redevelopment of BPL, whether publicly or privately financed, is an attractive investment: even at a capital cost of £25m it repays its cost within 6 years of operation. Beecham however will require a rate of return on capital substantially above the rate at which the Government can borrow and this makes them a less attractive option: assuming again capital costs of £25 for both NHS and Beechams and assuming identical running costs, the estimated additional cost over 20 years of opting for Beecham is £10m (at forecast 80-81 outturn prices).

2. The Beecham option only overtakes the NHS option in financial terms if Beecham can rebuild significantly more cheaply or operate significantly more cheaply or both. (For example, if the NHS plant were to cost £25m, Beecham would have to spend no more than £17m on capital or operate it at 60% of the NHS running costs to be the better buy.) This analysis however does not allow for any benefits to the Exchequer from taxation of Beecham; a final judgement could only be made on the basis of detailed plans from Beecham.

3. Table I: Cost benefit analysis of BPL redevelopment.

1 YEAR	2 CAPITAL REBUILD	3 BPL REV & CAP	4 RHA REV & CAP	5 TOTAL SPENDING	6 REVENUE BENEFIT OF TOTAL PRODUCTIONS	7 NET BENEFIT	8 DISCOUNTED AT 7%
0	9.0	-	-	9.0	-	-9.0	-9.0
1	8.0	-	-	8.0	-	-8.0	-7.48
2	8.0	-	-	8.0	-	-8.0	-8.98
3	-	5.0	17.3	22.3	16.0	-6.3	-5.14
4	-	5.0	17.3	22.3	32.0	+9.7	7.40
5	-	5.0	17.3	22.3	32.0	+9.7	6.92
6	-	5.0	17.3	22.3	32.0	+9.7	6.46
7	-	5.0	17.3	22.3	32.0	+9.7	6.04
8	-	5.0	17.3	22.3	32.0	+9.7	5.65
							+3.87

Notes

1. All figures in £ millions and at estimated 80/81 out-turn prices.
2. Total capital rebuilding cost taken as £25.0m over 3 years.
3. BPL revenue and capital for increased activity is not expected to rise pro rata to current cost since scale of production should result in economies of unit costs. Activity including the 80/82 short term upgrading programme is estimated at £3.0m but that for doubled activity at £5.0m (Col 3).
4. RHA unit cost per donation of plasma - £8. Col 6 anticipates a need for some 2,160,000 donations.

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5. Revenue benefit is taken to represent the 80/81 commercial value of self-sufficiency in factor VIII (£15.7m). Other products not valued but may be regarded as an unquantifiable benefit over and above this ceiling.

6. Benefit of full production is not anticipated until second year after commissioning. Half of that rate only anticipated in first year.

7. BPL redundancy costs have not been included.

8. Outlay pays back in 9 years from building start, i.e after 6 years' operation.

4. A comparison of the costs of NHS rebuilding with Beecham rebuilding should look at the total costs involved i.e. the capital and revenue costs of NHS building and operation and the cost of buying Beecham's production. Beecham would charge the NHS the running costs of the plant and a return on capital. Assuming initially that Beecham's running costs for BPL are the same as the NHS's would be, these running costs can be ignored and the comparison based on the cost to the NHS of building as opposed to the cost of paying Beecham their return on capital. In essence this comes down to a "buy-or-lease" question, and Treasury guidance is that such an analysis of financial flows should use the Government long-term borrowing rate (currently 13.875%). The table below shows the analysis over the first 10 years of operation, and shows that the Beecham option would cost in total some £3m. more (at forecast 80-81 out-turn prices). The equivalent figure over 20 years is £10m.

5. Table II: Comparison of Capital Costs £M Estimated 80/81 Prices

	NHS OPTION				BEECHAMS		
	CAPITAL SPEND		DISCOUNTED AT 13.875%		SPEND		DISCOUNTED AT 13.875%
0	9.0		9.00		-		-
1	8.0		7.02		-		-
2	8.0		6.17		-		-
3					6.25		4.23
4					6.25		3.72
5					6.25		3.26
6					6.25		2.87
7					6.25		2.52
8					6.25		2.21
9					6.25		1.94
10					6.25		1.71
11					6.25		1.50
12					6.25		1.31
TOTAL			22.19				25.27

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