Mr Podger

MANAGEMENT SERVICES STUDY OF THE MANAGEMENT OF THE BLOOD TRANSFUSION SERVICE

HS1 consider that an urgent study is required of the organisation and financing of the blood transfusion service. It is proposed that officers of NHS MS Branch conduct it.

2. If it proceeds, the study will be considering fundamental issues affecting a major regional service. It is therefore appropriate that the NHS Management Board should give its approval to the study. This way forward has been agreed with Mr Hart.

3. I therefore attach a paper which we should like the Board to consider at the earliest opportunity. I envisage that Dr Smithies (MedSEB) and myself will present it. Could you please let me know if any further action is required on our part at this stage. As this is my first experience of putting a paper to the Board I would be grateful for general advice on the form that presentations usually take. For example is it customary to use transparencies (or other visual aids) summarising the paper and giving key facts and figures? A word on the telephone would be appreciated.

GRO-C

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ORGANISATION AND FINANCE OF BLOOD TRANSFUSION AND RELATED SERVICES

1. SUMMARY

1.1 This paper sets out the problems facing the Blood Transfusion Service and seeks Management Board approval to a study by NHS Management Services Branch of the organisation and financing of blood transfusion and related services.

2. PRESENT ORGANISATIONAL ARRANGEMENTS

2.1 The National Blood Transfusion Service (so called) comprises:

2.1.1 13 independent Regional Transfusion Centres (RTCs) managed by RHAs and financed from their cash limits (£44m in 1984/85)

2.1.2 the central blood laboratories comprising the Blood Products Laboratory (BPL) and Blood Group Reference Laboratory (BGRL). These are managed by the Central Blood Laboratories Authority (CBLA) - a special health authority, financed direct by DHSS from the H&CHS Vote (£6m revenue in 1985/6);

Co-ordination is limited to that provided by DHSS (HS1A and MedSEB). Often influence is exerted on the behalf of DHSS by the CMO's Consultant Adviser who is a Regional Transfusion Director.

2.3 Scotland and Northern Ireland have completely separate arrangements. North Wales uses the services of Mersey BTC and all of Wales uses the CBLA.

3. FUNCTIONS

3.1 RTCs mainly:

3.1.1 organise call up, bleeding and plasmapheresis of donors;

3.1.2 test blood for grouping, infections, (eg hepatitis, syphilis and AIDS), anaemia and cell content.

3.1.3 separate whole blood into components eg red cells, platelets, white cells, plasma etc. Use plasma to produce cryoprecipitate (crude coagulation factor for treatment of haemophiliacs), freeze the plasma for use in hospitals or send it to BPL (see below). Identify donations from those who have high antibody levels (for use by BPL see 3.2.1 below);

3.1.4 supply and distribute whole blood, RTC produced components and BPL products to hospital blood banks and haemophilia treatment centres;

3.1.5 act as a reference laboratory for cross-matching difficulties at hospital blood banks.

In addition:

3.1.6 most RTCs test all the ante-natal blood samples collected at ante-natal clinics for grouping, rhesus antibody, and infections;

and

3.1.7 many RTCs are responsible for tissue typing for the Region.

3.2 The Central Blood Laboratories comprise BGRL and BPL.

3.2.1 BGRL acts as a reference laboratory for blood groups; it manufactures certain diagnostic blood grouping reagents obtained from plasma supplied by RTCs. it supplies blood grouping reagents which can be made from monoclonal antibodies. It runs a quality assurance scheme for blood grouping and cross-matching carried out in NHS hospitals.

3.2.2 BPL takes plasma from RTCs and processes it into a number of blood products such as Factor VIII and Factor IX for haemophiliacs and albumin for shock, burns etc. It also manufacturers specific immunoglobulins from plasma collected from donors identified at RTCs. It manufactures and supplies the diagnostic kits for hepatitis testing in RTCs.

4. POLICY CONSIDERATIONS

4.1 The UK is self-sufficient in whole blood.

4.2 England and Wales are pledged to become self-sufficient in blood (plasma) products (achieved in Scotland and Northern Ireland). This objective has been given added impetus by the emergence of AIDS.

4.3 Around £40m is being invested in a new BPL to achieve self-sufficiency and to save the expense of and health risks associated with imported commercial products. The plant should come on stream in 1986.

5. EFFECT OF DEVELOPMENTS IN MEDICINE AND TRANSFUSION PRACTICE

5.1 When they were first established, RTCs mainly collected, tested and distributed whole blood. RTCs were a logical development from the original hospital-based transfusion arrangements.

5.2 Medical advances have dramatically increased the demand for blood donations (500,000 in 1948, 2,000,000 in 1984) and more significantly improvements in blood transfusion practice haveled to ever increasing use of blood components.

5.3 Cardiac surgery and transplant surgery (particularly liver transplants) require significant quantities of blood. One liver transplant operation may need the equivalent of a hundred donations or more.

5.4 Blood component therapy has become increasingly refined in the last 12 years.

5.4.1 The greatest increase in demand for blood components has risen as a result of the ability to separate the major coagulation factors which are lacking in haemophilia. It is now possible for haemophilia patients to be maintained on home treatment using these specific factors instead of needing to attend hospital thus vastly improving the quality of life.

5.4.2 Production of specific immunoglobulins for the treatment of infections and certain other conditions is an important function. To obtain these immunoglobulins plasma has to be obtained from volunteer donors who either naturally have high antibody levels or are vaccinated to produce high levels. Plasma is collected from these donors and the specific immunoglobulin prepared at BPL. The successful treatment of Rhesus factor disease of the newborn in the UK is based on supply of anti D immunoglobulin by male volunteer donors immunised against the D antigen.

5.4.3 With the advances in therapy for leukaemia the requirements for blood and platelet therapy have increased dramatically. Platelets are best obtained from donors by plasmapheresis, their shelf life does not exceed 5 days so the turnover has to be very rapid.

5.4.4 Production of albumin from plasma is becoming increasingly important. In common with the demand throughout the Western world there is an increased demand for use in various therapies. Furthermore, it is getting more difficult to obtain from commercial sources and what is available is extremely costly.

6. PROBLEMS

6.1 The present organisation worked well whilst RTCs were mainly concerned with supplying whole blood for transfusion. Regions were generally self sufficient.

6.2 However, the ability of a RTC to collect blood is affected by quite different considerations from the demands placed upon it by its Region's hospitals. London RTCs for example have difficulty recruiting donors but do a disproportionate amount of high technology surgery requiring blood and components; including demands from the private sector.

6.3 Informal arrangements have kept the system going. RTCs have collected blood in excess of their needs to supply others. As Regions have felt financial pressure parochial attitudes have developed. For example, a long standing arrangement between Oxford and North West Thames is breaking down. Additionally some RTCs are no longer prepared to immunise donors to obtain high levels of antibodies in order to provide sufficient immunoglobulin to the whole country.

6.4 The success of the investment in BPL depends on an adequate supply of plasma from RTCs. Targets were given to them in 1981 . The targets are population based. They do not reflect the Region's needs for BPL's output. Some Regions will not get back in products the full value of the cost of supplying the plasma. Four Regions have given less than firm assurances that targets will be met. Again, local interests are prevailing over the national interest.

6.5 Blood technology is developing rapidly. Each RTC does similar tasks. However, there is no co-ordinated research and development programme either for clinical matters or comparing different operational methods. RTCs do projects of their own choosing using whatever spare resources they have in their operational budgets.

6.6 Each RTC is a separate fiefdom. There is little standardisation of methods or procedures. There are probably savings to be made from standardising on the most cost effective practices and in areas such as computerisation.

6.7 Many activities require national co-ordination of RTCs and CBLA, eg donor publicity, plasma supply etc. DHSS has to act as a co-ordinator relying mainly on persuasion of individual Regional Transfusion Directors (RTDs), the use of semi formal committees and a multidisciplinary National Advisory Committee on the NBTS. This role is essential. The need to co-ordinate implementation of a national policy for AIDS screening is an example. This function fits ill,however, with post Griffiths views on DHSS/NHS relationships.

7. RECENT DEVELOPMENTS - CROSS CHARGING

7.1 We have the results of a feasibility study undertaken by Price Waterhosue (for the National Advisory Committee on the NBTS) on cross charging between CBLA and RTCs for plasma supplied and products received; and between RTCs and customer HAs. This showed that charging was technically feasible and the report was generally well received by RHA officers attending a presentation of it.

7.2 Introduction of cross charging could help some of the problems outlined above. RTCs who produce blood and/or plasma surplus to their needs would be recompensed. However, it cannot be guaranteed that RTCs will respond to this form of financial incentive and produce the right quality and quantities to ensure demand and supply equate nationally.

8. RECENT DEVELOPMENT: RTDS' PROPOSALS

8.1 RTDs have put forward their own proposed solution. They advocate that the BTS be reorganised on a truly national basis.

8.2 It would certainly be possible to create a Special Health Authority which would assume control of RTCs and the present CBLA. On the face of it this would solve many, if not all, the problems identified above.

8.3 However, centralisation of a RHA function would require exceptional justification and need to offer clear, quantifiable, advantages in terms of effectiveness, efficiency and economy.

9. PROPOSAL

9.1 There are sufficient concerns about blood related services to justify a serious study of the national scene.

9.2 Such a study would aim to identify and (wherever practical) quantify current problems (eg Regional imbalances in supply and demand); and reach a view as to whether or not they are (in whole or part) caused by the current organisation.

9.3 The study would examine whether organisational and financial changes (including cross charging and centralisation) might solve these problems. It would not start with any preconception that any change is necessary or desirable, but would assess the costs and benefits which changes might produce.

9.4 RHAs are currently considering the appropriate means of managing RTCs post Griffiths. It is desirable that any decision to mount a study is made before any far reaching changes are put into effect.

9.5 If agreed by the Management Board, the next steps would be:

a. to inform Ministers;

b. consult with RCMs.

c. inform the Staff side of the NHS General Whitley Council.

9.6 Proposed terms of reference are attached.

HSl

January 1986

ANNEX

SUGGESTED TERMS OF REFERENCE

1. To examine the blood transfusion and related services provided by RTCs and CBLA in order to:

1.1 assess the current and forecast needs of the NHS and private sector for such services;

1.2 identify those services in which RTCs can or cannot be expected to be self-sufficient and the way in which RTCs and CBLA interact;

2. To consider whether the existing organisation and financial arrangements appropriately support the delivery of services; and to the extent that they do not, to explore possible alternative ways of organising and financing these services and to assess and advise on the relative costs and benefits of any feasible alternatives.