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E: AIDS REPORT - For Discussion with the Japanese Ministry of Health June 6, 1983.

HISTORY OF AIDS IN THE UNITED STATES

Not since Hepatitis in the 1960's was associated with blood and blood products has there been an issue as significant and complex within the blood products industry as AIDS. AIDS (Acquired Immune Deficiency Syndrome) has touched virtually every aspect of collection, processing and use of blood and blood products. The following is a brief chronology of AIDS in the United States:

1 : First cases of AIDS were reported to the Centers for Disease Control; establishmen of agnosis not yet determined.

1980 to 1981: Many cases of opportunistic infections reported to the Centers for Disease Control, largely Pneumocystis Carini Pneumonia and Kaposi's Sarcoma among pr ously healthy, largely male homosexual individuals.

July 1982: Several hemophiliacs diagnosed with opportunistic infections and immune deficiencies similar to those previously reported in male homosexuals. A review of AIDS and the potential transmission in blood and blood products was made by a joint meeting in Washington of Office of Biologics people and representatives of blood banking and blood and plasma industries. No action specifically taken at that point.

December 10, 1982: Meeting held with similar participants to July meeting to discuss case of infant in San Francisco who received a unit of platelets from a donor subsequently diagnosed with AIDS. Platelet unit received by infant along with 17 other blood products. Implications at this time strongly indicated possible transmission through blood and blood products. Further meeting of concerned parties set for January 4, 1983 at the request of Dr. Brandt, Assistant Secretary of Health. At this time, the National Hemophilia Foundation recommended screening out donors from the high risk groups by both plasmapheresis operations and blood banks as a means of controlling the spread of AIDS to hemophiliacs.

January 4, 1983: Meeting held at the Centers for Disease Control in Atlanta to review history of AIDS and make recommendations concerning the donor selection, blood and blood products collection, handling and processing and the precautions for health care workers caring for AIDS patients. No specific official recommendations were made by the groups, however, the CDC made recommendations concerning the selection of blood donors excluding donors from high risk groups (but not directly asking donors if they were in high risk groups) and the application of Hepatitis-like practices in the care and treatment of AIDS patients.

March 4, 1983: The Centers for Disease Control in their Weekly Morbidity and Mortality Report, made recommendations concerning the selection of blood donors and the use of blood products.

March 24, 1983: Office of Biologics issued recommended procedures for blood banks and plasma centers to be followed in screening potential blood and plasma donors.

May 12, 1983: Review by a panel of experts of blood transfusion-related cases of AIDS dicates few, in any, transfusion-associated cases.

May 24, 1983: Dr. Brandt, Assistant Secretary for the Department of Health, Education and Welfare, and Chief Public Health Officer in the United States announces that AIDS is an important health problem but limited to specific population segments: homosexual or bisexual males with multiple partners, I.V. drug abusers recent Haitian entrants and persons with hemophilia. He indicates that various agencies of HEW are and will be funding substantial research efforts in the area of AIDS, making AIDS the number one of research by public organizations. He also announced the licensing of a heat-treated AHF thought to reduce the risk of transmitting virus of which AIDS may be one.

CURRENT STATUS OF AIDS

Since the cause of AIDS is not currently known, AIDS is defined with a clinical diagnosis. The clinical diagnosis ultimately must include the presence of opportunistic infection in patients with no explanation for an immune defect. While many AIDS patients have T helper-suppressor ratios that are reversed, this is not true in all AIDS patients. There is yet, at present, only a clinical diagnosis for AIDS.

AIDS continues to be confined to several special population groups. These groups are as follows:

1. A limited sub-population of the homosexual community which is defined as the sexually active homosexual with multiple partners in multiple sexual practices. The exposure rate or infection rate is approximately 1 in 150 exposures.

2. I.V. drug abusers, principally in New York City, developed AIDS about the same time as homosexuals and continues to be confined principally to New York City.

3. Haitians have a rate of approximately 1 in 1000 exposures with the disease.

4. Hemophiliacs. Approximately 1 in 1000 or 12 known hemophiliacs in the United States have AIDS with some question whether it is truly the same disease as seen in other high risk groups.

5. Blood transfusion recipients. Approximately 11 adults have questionable transmission of AIDS through blood products. In no case has there been a clear cut adult transmission from one donor with AIDS to one recipient who gets AIDS. Tragically, no AIDS patient has regained lost immunity.

While the cause of AIDS in the United States is still unknown, a substantial amount of work in research is being undertaken to determine the possible etiology of the disease. There is a strong suggestion that a new infectious agent is the possible cause of the disease. The most important research is focused on finding the agent. Blood, blood cells, tissue, plasma, etc. have been taken from AIDS patients and developed in both conventional tissue culture and in cloned tissues but have yet to show an agent. Material from AIDS patients has been injected into a large number of primates and monkey groups with no clinical manifestations of the disease as yet. Work on different types of retro viruses, human T-cell Leukemia virus, and parvo viruses (especially

Feline virus known previously to change its host group from cats to dogs in the late 1970's) are being looked at.

Finding the agent is the key to the identity of high risk individuals and high risk products. Finding the agent, however, as is known from Hepatitis, will not necessarily resolve the problem.

At present, individuals with AIDS are not known to have reversed their status, that is, the immune deficiency has not changed. The present mortality rate is in excess of 40%, however, it approaches 100% of AIDS patients diagnosed two or more years ago. AIDS patients have an average of six opportunistic infections before death. Death generally comes from Pneumocystis Carini Pneumonia or from Cytomegalovirus. One of the earliest infections apparent in AIDS patients is Kaposi's Sarcoma which often is the first indicator of the existence of AIDS in previously healthy individuals.

Widespread media coverage of AIDS and the emotional issues involved with the various sub-populations included in the high risk groups have made AIDS a very public issue in the United States. This has led to widespread concern in the blood banking community by donors and recipients. Currently, blood donations are down 5% to 10% in the United States. Additional concern from outside the United States has been expressed by users of blood products originating in the United States. Several European countries have either closed imports of U.S. products or put restrictions on the points of origin within the United States for such products. The level of concern for this issue outside the United States appears to rise as the information becomes more generally available outside the U.S.

One of the most significant impacts of AIDS on Alpha currently is the reduction in use of AHF concentrate in the hemophilia population. This has led to a substantial reduction in Alpha's sales in the United States of AHF and increased competition among AHF producers for the market. We estimate the reduction at approximately 24% for 1983. In addition, the reduction in plasma procurement principally in procuring blood bank plasma as a result of the early postiion Alpha took concerning screening of donors at a time when blood banks were not required by Federal regulations to screen donors, cost a substantial amount of blood bank plasma to be removed from our procurement opportunity. Blood bank plasma is one of the lowest cost plasmas and the need to replace it with source plasma has required substantial procurement penalties in higher plasma costs in 1983.

WHAT HAS ALPHA DONE FOR AIDS

Up to December 10, 1982, Alpha's principal position with AIDS was to monitor information and be ready to take a position when information so indicated. After the December 10, 1982 review of the first transfusion suspected case, Alpha initiated an AIDS program as follows:

1. Plasma procurement for AHF preparation was discontinued from those areas indicated as being at high risk which included San Francisco, New York, Los Angeles and Miami.

2. Alpha initiated, effective December 21, 1982, in all Alpha Donor Centers, a program to educate donors on the high risk of AIDS and those groups that were particulary at high risk. In addition, each potential donor at each time of donating is asked specific questions whether they were of the high risk groups that is, male homosexual, I.V. drug abuser, Haitian or other individual with contact with one of the high risk groups.

3. For plasma obtained from blood banks, Alpha's specifications were changed requ that plasma collected after January 1, 1983, be from donors screened in the sa manner as those at Alpha's Plasma Centers. (At first this was applied to all plasma. Later in January, it was reduced to apply only to plasma to be used in the manufacturing of AHF since other products are subject to heat treatment

   The result of this requirement was a severe reduction in plasma procurement fr blood banks as blood banks, at this point in time, refused to follow Alpha's lead and would not follow the screening requirements until forced to by regulations from the Office of Biologics on March 24, 1983.

4. An Alpha Task Force was established to collect data, communicate information within Alpha and make recommendations and policy as related to AIDS. This group was established in late December as a result of the very rapid increase in information and the resulting potential for misinformation or lack of proper communication on this highly sensitive issue.

5. The priority of Heat-treated AHF, which if AIDS is similar to Hepatitis would offer some potential for reducing the risk of transmission, was moved to an escalated number one position within Alpha.

6. Educational programs to hemophiliacs, treaters and the general public was developed in the provision of questions and answers concerning AIDS and the treatment of hemophilia. Attendance at hemophilia meetings on a regional level with blood banks and in dealing with the media at a donor center and national level, provided Alpha with substantial public educational public education opportunities in this field. Dr. Drees and Dr. McAuley made public announcements concerning Alpha's leading role in establishing donor criteria related to AIDS.

THINGS ALPHA CONTINUES TO DO CONCERNING AIDS

1. Continue to monitor closely action relative to AIDS on the scientific level withi the blood banking community and among hemophilia users and treaters and internati We will continue to look out for the best corporate interest, to mold public policy where appropriate and to take advantage where possible of our positioning in the market place.

2. Push at maximum speed for the production of Heat-treated AHF.

3. Label AHF with a warning for AIDS to reduce potential liability of Alpha.

4. Investigate potential research projects with government funding that may be of advantage to Alpha.