

June 3, 1983
REF: N-3.128

CUTTER INTERNATIONAL
DIVISION OF MILES LABORATORIES INC.
2201 CALLE STREET
PO BOX 800
EMERYVILLE CALIFORNIA 94608
PHONE (415) 425-4222
DIRECT DIA. (415) 425

TELEF. VACUUMS (415) 425-4222
CABLE: MILES BERKELEY

Mr. B. Dyos
Cutter Laboratories
Division of Miles Laboratories
Stoke Court, Stoke Poges
Slough SL2 4LY
Buckinghamshire, England

AIDS

Dear Mr. Dyos:

The world-wide attention currently focused upon Acquired Immune Deficiency Syndrome has resulted in our receiving numerous requests for both general information about this disease and responses to specific questions related to AHF concentrates.

We feel it might, therefore, be helpful to you in answering any questions from your customers if we were to provide you some background to this complex and emotional issue. Accordingly, I am attaching a summary of the key issues that should enable you to address the most frequently raised concerns.

Please do not hesitate to contact me if I can be of any further assistance.

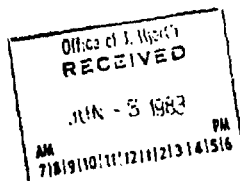
Sincerely yours,

J. N. Ashworth

J.N. Ashworth, Ph.D.
Division Vice President
Scientific Affairs

JNA:lm

Attachment



Acquired Immune Deficiency Syndrome

The increased medical concern over the Acquired Immune Deficiency Syndrome (AIDS) has spread to the hemophiliac population during the last year. Little is known about it and because a variety of groups have attempted to address the issue, AIDS has become the center of irrational response in many countries. This is of particular concern to us because of unsubstantiated speculations that this syndrome may be transmitted by certain blood products, specifically cryoprecipitate and AHF concentrates.

What is known -- or rather unknown -- about AIDS is important.

- A. The mechanism of the disease itself is unknown. Theories range from a viral agent or agents to immune system overload. Many theories abound -- some are technical and quite complex medically; others are wildly speculative. (See point 1 and 2, below.)
- B. While it has not been explicitly postulated that AHF concentrates are responsible for the appearance of this AIDS-like syndrome, nevertheless there exists an implied assumption that they may be implicated in the transmission of the syndrome seen in hemophiliacs. What little evidence exists, however, in fact tends to suggest that AHF concentrates have no direct role in this syndrome. (See points 3-6, below and Q1 in the Q and A summary.)
- C. The AIDS-like syndrome as seen in hemophiliacs may be a very different syndrome from that seen in cases from other high risk groups. There is even some question as to whether the syndrome in hemophiliacs can be defined as AIDS. (See point 2, below.)
- D. In the United States, plasma procurement has always been the subject of very stringent governmental controls. Cutter's plasma products thus come from a raw material source that is carefully screened and controlled to reduce the risk that disease agents will be transmitted through certain plasma products.

More recent measures further provide a reduction of the possibility that AIDS -- if in fact it can

be transmitted by blood and certain blood products -- will be transmitted by plasma products.

Any actions taken to refine the manufacturing process to exclude such transmissible agents -- such as heat-treatment or chemical inactivation -- cannot yet be proven to be effective. In fact, it has been shown by chimpanzee studies that heat-treatment by itself is not sufficient to inactivate the hepatitis B virus in Factor VIII concentrates. As a result, we cannot assume that a possible AIDS-related transmissible agent in blood would be inactivated by any known method acceptable for manufacture of products intended for human use. Until such a method can be devised, controls to provide the high quality of the raw material -- plasma -- offers more hope in preventing disease transmission than any current process modification. (See points 8-10.)

It is also important for you to know the following about the relationship between AIDS, hemophilia, and AHF concentrates:

1. An AIDS victim does not die of AIDS. AIDS is simply a medical term which indicates a generally suppressed or malfunctioning immune system. Mortality usually comes when pathogens routinely encountered in daily life and repelled by the body's immune system enter the defenseless "host" and multiply without interference from the immune system.
2. As a result, unusual diseases and infections occur and common infections are seen in a more virulent form. Although a type of cancer (Kaposi's sarcoma) has been seen in many AIDS victims, it has never been seen in hemophiliacs.
3. Last year out of a population of approximately 20,000 hemophiliacs in the U.S., only 12 have been diagnosed as having an apparent AIDS-type syndrome; nine of them have died. No cases of this syndrome have been reported in hemophiliacs in the U.S. this year
4. All of the hemophiliacs who were diagnosed as having an AIDS-like syndrome used AHF concentrates. Some used other blood products as well; one was an I.V. drug user.

5. Koate: AHF concentrate was not used by any of the 12 hemophiliacs who were reported as having an AIDS-like syndrome.
6. In only rare instances had the 12 cases in question been exposed to common lots of AHF concentrates. A lot of AHF concentrate may contain up to 7,000 vials and may be used by as many as 100 hemophiliacs. In a single year, about 800 lots of AHF concentrate are produced in the U.S. and an average hemophiliac, using 30,000 to 50,000 IU/year, will get material from 5 to 10 lots.
7. The Centers for Disease Control in Atlanta report that in 1982 the largest single cause of death in hemophiliacs is still bleeding episodes.
8. Intensified donor screening procedures were instituted throughout the U.S. on March 1, 1983. At Cutter, however, some of the AIDS-related screening procedures -- such as routine checks for weight loss and generalized lymphadenopathy -- which are now required by the FDA, have been in use for many years. Thus, Cutter already had a screening program in place prior to March 1, 1983.

Additionally, Cutter's "donor screening" procedures to eliminate high-risk groups of unhealthy and HBsAG positive donors have always complied with the regulations of the U.S. FDA which are the most rigorous in the world.
9. There are no Cutter centers in New York, San Francisco, Los Angeles or Miami, where the vast majority of AIDS cases to date have been reported.
10. Heat-treatment for complete viral inactivation in Factor VIII concentrates has not been shown to be effective. Heat-treated product recently released by a U.S. company caused hepatitis in test animals. A heat-treated Factor VIII concentrate of European origin is said to be free of the risk of hepatitis transmission but this has not been documented nor has the product been tested with the necessary rigor to substantiate this claim.

Q and A Summary

- Q1. Does Koate® AHF concentrate transmit AIDS?

- A1. This has not been shown. Koate¹ AHF concentrate has not been implicated in any of the 12 AIDS-like cases seen in hemophiliacs. It is not proven that AIDS is transmitted by AHF concentrates.

If AHF concentrates transmit AIDS, it is impossible to explain why all hemophiliacs who used a common lot did not contract this AIDS-like syndrome rather than the 12 reported cases.

- Q2. Can Koate¹ AHF concentrate be safely used?

- A2. The U.S. FDA requires the most rigorous screening procedures in the world to control the quality of plasma used in the manufacture of Cutter's products. These screening procedures have been intensified in order to eliminate donors at high risk for AIDS.

Cutter has declared the location of its plasma collection centers and none of them are located in New York, San Francisco, Los Angeles or Miami where the vast majority of AIDS cases have been reported.

- Q3. Does heat-treated AHF provide any advantage over Koate¹ AHF concentrate?

- A3. This cannot be proven. As a result of the lack of positive evidence of complete inactivation of viruses, an assumption of increased protection from viral transmission from heat-treated Factor VIII concentrate is not warranted at this time.

In the meantime, it is our feeling that it would be of questionable value for hemophilia patients to be persuaded to change to products which raise the cost of an already expensive therapy in return for no guarantee of increased protection. It would also be inadvisable to suspend or reduce treatment and thus increase the probability of bleeding episodes which result in disability and death.

As long as the AIDS agent is not known and as long as viral inactivation procedures cannot be shown to be effective, it is more desirable to prevent the introduction of a possible AIDS agent in the starting material than to attempt to eliminate it with unproven procedures at a later stage in the process.

Q4. Will Cutter introduce a heat-treated AHF concentrate?

A4. The Cutter goal is to produce a virus-free AHF concentrate which is safe and effective. Since it appears that heat-treatment at present is not completely effective for viral inactivation in AHF concentrates, Cutter will pursue heat-treatment as an interim step with the aim that heat-treatment under proper conditions will result in viral inactivation.

Final Statement

Your interests and those of the patient are of paramount concern to us. Be assured that every avenue for research and exploration into these new and challenging questions is being addressed. As new developments occur we will inform you fully; we will keep you in touch with progress.

2.VI.83

Vinside_addressVMr. Mohamad Nahhas
Cutter Laboratories
P.O. Box 1116
Amman, Jordan
Vsalutation_nameVMr. Nahhas

Vinside_addressVMr. Aldo Fabbri
Laboratórios Dr. Gador y Cia., S.A.C.I.
Casilla Correo Central 4041
1000 Buenos Aires
Republica Argentina
Vsalutation_nameVMr. Fabbri

Vinside_addressVDr. Jorge Ribeiro
Laboratório Palenzona, C.A.I.
Urbanizacion La Trinidad
Caracas 108
Venezuela
Vsalutation_nameVDr. Ribeiro

Vinside_addressVMr. Fernando Kauffman
Laboratórios Lepetit S.A.
Av. America do Sul, 1500
CEP 04754 - Sto. Amaro
Sao Paulo, Brazil
Vsalutation_nameVMr. Kauffman

Vinside_addressVMr. C. Esquivel
Costa Rica Dental & Medical Supply Co.
Apartado 434
Calle 4, Avenida 3
Diagonal al correo
San Jose, Costa Rica
Vsalutation_nameVMr. Esquivel

Vinside_addressVMr. Rafael Julia
Miles Overseas, Inc.
Tabonuco St. 4-B
Caparra Hills
San Patricio Development
Guaynabo, Puerto Rico 00920
Vsalutation_nameVMr. Julia

Vinside_addressVMr. Len Wisdom
Tuta Laboratories Pty. Ltd.
332 Burns Bay Road
P.O. Box 166
Lane Cove NSW 2066
Australia
Vsalutation_nameVMr. Wisdom

Winside_addressVMr. Godwin Ngan, Asst. Manager
Luen Cheong Hong Ltd.
Caltex House 17th Floor
258, Hennessy Road
Hong Kong
Vsalutation_nameVMr. Ngan

Winside_addressVMr. Ferdinand Fung
United Italian Trading Corp. Ltd.
Caltex House 16th Floor
258, Hennessy Road
Hong Kong
Vsalutation_nameVMr. Fung

Winside_addressVDr. Haryanto Santoso, Manager
Pradja Pharmaceutical Industries
P.O. Box 2684
Jl. Taman Tanah Abang III/25
Jakarta Pusat
Indonesia
Vsalutation_nameVDr. Santoso

Winside_addressVDr. Hengky Indrajaya, Cutter Supervisor
Pradja Pharmaceutical Industries
P.O. Box 2684
Jl. Taman Tanah Abang III/25
Jakarta Pusat
Indonesia
Vsalutation_nameVDr. Indrajaya

Winside_addressVMr. J.R. Hawkless
Smith Biolabs Co., Ltd.
P.O. Box 36007
43-45 Woodside Avenue, Northcote
Auckland 9, New Zealand
Vsalutation_nameVMr. Hawkless

Winside_addressVMr. Bill Wiggle
Smith Biolabs Co., Ltd.
P.O. Box 36007
43-45 Woodside Ave., Northcote
Auckland 9, New Zealand
Vsalutation_nameVMr. Wiggle

Vinside addressVDr. Roberto Gonzalez
Bayer Philippines, Inc.
Pharmaceutical Division
Equitable Bank Building
P.O. Box 7737 ADC, MIA
Ortigas Ave. Corner Roosevelt St.
Metro Manila, Philippines
Vsalutation_nameVDr. Gonzalez

Vinside addressVMr. Rodelio Victa
Bayer Philippines, Inc.
Pharmaceutical Division
Equitable Bank Building
P.O. Box 7737 ADC, MIA
Ortigas Ave. Corner Roosevelt St.
Metro Manila, Philippines
Vsalutation_nameVMr. Victa

Vinside addressVMr. Frank Fung, Director
United Italian Trading Corp., Ltd.
P.O. Box 2536
207-B Thomson Road
Goldhill Centre
Singapore, 1130
Vsalutation_nameVMr. Fung

Vinside addressVMr. Thomas Te-Shin Lin
Tian Shing Trading Co., Ltd.
P.O. Box 1617
Glory Building-7th Floor
36, Chang An E. Rd., 1st Section
Taipei, Taiwan
Vsalutation_nameVMr. Lin

Vinside addressVMr. N. Naewboonnien
Semco Company, Ltd.
997-1001 Silom Road
Bangkok 5, Thailand
Vsalutation_nameVMr. Naewboonnien

Vinside addressVMr. Klaus Juelicher
Cutter Japan Ltd.
Kobe International Friendship Bldg.
9-1, Minatojima-Nakamachi
6-Chome, Chuo-ku
Kobe 650, Japan
Vsalutation_nameVMr. Juelicher

Vinside_addressVMr. B. LaHalle
Biopharm
17, rue Gaetan Lamy
93300 Aubervilliers
France
Vsalutation_nameVMr. LaHalle

Vinside_addressVDr. J. Nicolau
Laboratorios Hubber, S.A.
Berlin, 38-48
Barcelona, Spain
Vsalutation_nameVDr. Nicolau

Vinside_addressVMr. J. Tersin
Bayer (Sverige) AB
Box 5148 - Karlavagn 41
102 43 Stockholm 5
Sweden
Vsalutation_nameVMr. Tersin

Vinside_addressVMr. R. Froitzheim
Troponwerke
Vertrieb Cutter
Berliner Strasse 156
5000 Koeln 80
West Germany
Vsalutation_nameVMr. Froitzheim

Vinside_addressVMr. B. Dyos
Cutter Laboratories
Division of Miles Laboratories
Stoke Court, Stoke Poges
Slough SL2 4LY
Buckinghamshire, England
Vsalutation_nameVMr. Dyos

Vinside_addressVMr. B.F. Knudsen
Bayer Kemi A/S
Postbox 2099 - 1014 Kobenhavn K
Christian IX's Gade 2
Denmark - 1111 Kobenhavn K
Vsalutation_nameVMr. Knudsen

Vinside_addressVMr. Peter Ngan, Director
Luen Cheong Hong Ltd.
Caltex House 17th Floor
258, Hennessy Road
Hong Kong
Vsalutation_nameVMr. Ngan

Letter sent to Cutter Distributors
overseas.

D. Anton

11-11

Acquired Immune Deficiency Syndrome

The increased medical concern over the Acquired Immune Deficiency Syndrome (AIDS) has spread to the hemophiliac population during the last year. Little is known about it and because a variety of groups have attempted to address the issue, AIDS has become the center of irrational response in many countries. This is of particular concern to us because of unsubstantiated speculations that this syndrome may be transmitted by certain blood products, specifically cryoprecipitate and AHF concentrates.

What is known -- or rather unknown -- about AIDS is important.

- A. The mechanism of the disease itself is unknown. Theories range from a viral agent or agents to immune system overload. Many theories abound -- some are technical and quite complex medically; others are wildly speculative. (See point 1 and 2, below.)
- B. While it has not been explicitly postulated that AHF concentrates are responsible for the appearance of this AIDS-like syndrome, nevertheless there exists an implied assumption that they may be implicated in the transmission of the syndrome seen in hemophiliacs. What little evidence exists, however, in fact tends to suggest that AHF concentrates have no direct role in this syndrome. (See points 3-6, below and Q1 in the Q and A summary.)
- C. The AIDS-like syndrome as seen in hemophiliacs may be a very different syndrome from that seen in cases from other high risk groups. There is even some question as to whether the syndrome in hemophiliacs can be defined as AIDS. (See point 2, below.)
- D. In the United States, plasma procurement has always been the subject of very stringent governmental controls. Cutter's plasma products thus come from a raw material source that is carefully screened and controlled to reduce the risk that disease agents will be transmitted through certain plasma products.

More recent measures further provide a reduction of the possibility that AIDS -- if in fact it can