Blood Banks and Plasma Centers: Converging Strategies for Meeting Patient Needs

Chris Healey, Vice President Public Affairs, Grifols
Innovators in addressing patient needs on a global scale.

The pioneers of bedside apheresis (José Antonio Grifols Lucas) and plasma fractionation (Dr. Edwin J. Cohn).
## Consolidated and Vertically Integrated Industry

### 1985 - Principal Producers of Human Plasma Derivatives for the US Market

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
<th>Ownership</th>
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<tbody>
<tr>
<td>Alpha Therapuetics</td>
<td>California</td>
<td>Green Cross (Japan)</td>
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<tr>
<td>Armour</td>
<td>Illinois</td>
<td>Cannaught (Canada)</td>
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<td>Connaught</td>
<td>Canada</td>
<td>Revlon (USA)</td>
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<td>Cutter</td>
<td>North Carolina</td>
<td>Bayer (Germany)</td>
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<td>Hyland</td>
<td>California</td>
<td>Baxter Travenol (USA)</td>
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<td>Immuno</td>
<td>Michigan/Austria</td>
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<td>Massachusetts State Lab</td>
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<td>Michigan State Lab</td>
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<tr>
<td>New York Blood Center</td>
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<tr>
<td>Netherlands Red Cross</td>
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<td>Netherlands Red Cross</td>
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In 2014, 36.9 MM liters of plasma were fractionated worldwide

75% from plasmapheresis (85% from the US)
- 27.9 MM obtained by plasmapheresis
- 8.9 MM obtained by whole blood donations
Changing dynamics in the sources of plasma for PDMP

- Dramatic increases in Source Plasma since the early 2000’s
- Flat and recently declining availability of recovered plasma.

Do the labels we use benefit or harm patient access to PDMP?
We request prompt follow up and agency action on this issue... the most efficient use of apheresis plasma from volunteer (unpaid) donors for further manufacturing... for fractionation into life-saving derivatives.

**Volunteer donor plasma should be regulated consistently, regardless of its method of collection.** The *Circular of Information for the Use of Human Blood and Blood Components* makes no distinction between plasma based on the collection method. Clinical indications for plasma are the same regardless of the method of collection, whether from apheresis or whole blood collection. . . .

When **is Source Plasma not Source Plasma?**

When it is *apheresis plasma.*
Threats to Patient Access and Treatment

Ontario Prohibits Paid Donation

The ROME Declaration on
Achieving Self-Sufficient in Safe Blood and Blood Products

Whose interests are at work here?
June 2, 2014

Dr. Margaret Chan
Director General
World Health Organization
Geneva, Switzerland
chanm@who.int

Subject: Rome Declaration on Achieving Self-Sufficiency in Safe Blood and Blood Products, based on Voluntary Non-Remunerated Donation

Dear Dr. Chan,

The American Plasma Users Coalition (APLUS) is a coalition of national patient organizations created to address the unique needs of patients with rare diseases that use life-saving plasma protein therapies. Together our coalition represents more than 125,000 Americans living with chronic disorders who depend upon plasma protein therapies to lead healthy, productive lives.

We are writing to express concerns regarding the Rome Declaration on Achieving Self-Sufficiency in Safe Blood and Blood Products, based on Voluntary Non-Remunerated Donation.

We agree with PLUS that the Rome Declaration recommendations may seriously and adversely impact access to treatments for patients relying on life-saving and life-enhancing plasma derived medicinal products, several of which are classified by WHO as essential medicines both for adults and children.

In the United States there is no policy restricting remunerated voluntary donations of plasma. The majority of safe and effective plasma derived medicinal products are produced from plasma obtained through apheresis of remunerated plasma donors. There is no evidence that remunerated plasma donations have increased safety risks for patients in the United States. In fact, it has been estimated results for the ever-increasing demand for such products to treat various rare and chronic disorders.

While we support the importance of voluntary blood and plasma donation for labile products, we believe that if recommendations in the Rome Declaration are implemented, there will be a serious decline in the supply of plasma-derived medicinal products, which will leave patients who need life-saving plasma treatments at severe risk of not having access to their treatments. Without these treatments, some patients will die and others will be left severely disabled.

According to estimates of the Market Research Bureau, in 2010, 32.8 million liters of plasma (recovered and apheresis) were collected worldwide. Of this amount, 20.4 million liters (62%) will be collected in the United States. Plasma derivatives made from United States source and recovered plasma are essential if we are to meet patient needs globally. Without these products, there will be a global shortage.
75% of people with bleeding disorders still receive very inadequate treatment or no treatment at all. The percentage is even higher for those with von Willebrand disease and rare factor deficiencies.

Of the estimated 100,000 people with Alpha-1 in the U.S., 90% don’t know they have it.

IDF conducted a national internet survey in 2010, which showed that less than half (46%) of patients with PIDD who have a diagnosis which IG is the recommended therapy are being treated with any form of IG.
More than 1,000 proteins have been identified in human plasma.
Only 20 of those identified currently have therapeutic application.
From that, only 4 proteins account for more than 70% of patient use.
200 therapeutic uses have been identified for PDMP.

An inadequate supply of plasma that meets internationally recognized standards for fractionation is considered to be one of the major factors limiting the global availability of plasma-derived medicinal products.” - WHO, Towards Self-Sufficiency in Safe Blood Products based on Voluntary Non-Remunerated Donation, Global Status 2013

We have only scratched the surface of potential therapeutic uses from proteins found in human plasma.
An Evolution in the Relationship Between the Blood and Plasma Sectors

A relatively peaceful co-existence for more than 40 years.

<table>
<thead>
<tr>
<th>Location (City, State)</th>
<th>Number of Plasma Donation Centers</th>
<th>Number of Blood Donation Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phoenix, AZ</td>
<td>3</td>
<td>2</td>
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<td>Dallas, TX</td>
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<td>Moorhead, MN, and Fargo, ND</td>
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<td>Orlando, FL</td>
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Given the changing supply dynamics for blood and recovered plasma – how will the relationship between blood banks and plasma centers change?
Shared approaches on ensuring blood and plasma supply
Shedding old stereotypes and biases

Accommodating changing market dynamics

Blood Industry Shrinks as Transfusions Decline

By MATTHEW L. WALD  AUG. 22, 2014

Changes in medicine have eliminated the need for millions of blood transfusions, which is good news for patients getting procedures like coronary bypasses and other procedures that once required a lot of blood.

But the trend is wreaking havoc in the blood bank business, forcing a wave of mergers and job cutbacks unlike anything the industry, which became large scale after World War II, has ever seen.

Transfusions are down almost one-third over the last five years, to about 11 million units last year from about 15 million units, according to the American Red Cross, which has about 40 percent of the market. With “minimally invasive” techniques like laparoscopic surgery and other shifts in medicine, demand for blood continues to drop despite population growth and a soaring number of people over 65, who have the most surgeries requiring blood.

Blood bank revenue is falling, and the decline may reach $1.5 billion a year this year from a high of $5 billion in 2008.

As fewer units of blood are used, hospitals, seeing strong supply and weak demand, are asking for a lower price per unit.

As a result, the blood bank business has already lost some jobs, and the losses will reach as high as 12,000 within the next three to five years, roughly a quarter of the total in the industry, according to the Red Cross. Officials there expressed some concern that the decline could reduce the system’s ability to respond to crises or to invest in new products or research.

From time to time since 2008, the Red Cross operated at a deficit. But it balanced its budget partly by cutting 1,500 jobs. Shaun Gilmore, president of Biomedical Services at the American Red Cross, said the organization was also looking to give up some real estate as it shrinks its operations to an appropriate size.
End
Converging Strategies for Meeting Patient Needs

Mark W. Skinner JD
IPFA / BCA Symposium – Future for Blood and Plasma Donation
28 September 2015
Dallas, Texas
APLUS, PLUS – Globally Connected

- **The American Plasma Users Coalition** (APLUS) is a coalition of national patient organizations created to address the unique needs of patients with rare diseases that use life-saving plasma protein therapies. Together our coalition represents more than 125,000 Americans living with chronic disorders who depend upon plasma protein therapies to lead healthy, productive lives.

- **The Platform of Plasma Protein Users** (PLUS) is a consortium of 7 patient organizations representing people living with treatable rare plasma related disorders such as haemophilia, primary immunodeficiencies and alpha1 anti-trypsin deficiency among others. Together these organizations they represent the views of more than 110,000 people living with treatable rare plasma related disorders in Europe.
PLUS Consensus Statements

- Endorsed by 29 Patient Organizations whose members rely upon plasma derived medicinal products
- Endorsed or supported in principle by:
  - FIODS (2011, 2012)
  - Attended by FDA, EMA, WHO
PLUS Consensus Statements

Consensus 2010

• “Plasma products made from both non–remunerated and remunerated donations are currently essential to meet global health needs.”

• “Activities undertaken to collect or promote adequate supplies of blood products should take into account the ability of those who collect plasma for fractionation to meet the requirements of patients who rely on these therapies.”

• “The needs of patients should determine the optimal collection of blood and plasma.”
PLUS Consensus Statements

Consensus 2011

• “Provide an adequate supply of PDMPs from recovered and source plasma to meet patient needs on a global level”
  - do not seek to ban or stigmatise 1 supply
• ”An insufficient supply is a major risk to patients”
• “All donations should be voluntary”
  - replacement donors
  - payment or time off work – both voluntary
• “Organisations involved in blood and plasma collection should co-operate with the goal of ensuring the health of the donor and potential blood component and PDMP recipients.”
August 18, 2014

Dr. Margaret A. Hamburg
U.S. Food and Drug Administration
10903 New Hampshire Avenue
Silver Spring, MD 20993

RE: Regulatory parity for apheresis plasma and plasma from whole blood

Dear Commissioner Hamburg,

We are writing today on behalf of the undersigned organizations of the blood community, transfusion medicine professionals, plasma protein manufacturers, medical technology companies and patients relying on plasma products for life-saving care. Included in this packet is a letter of support that was sent to you by a patient coalition representing 11 rare disease patient groups.

We request prompt follow up and agency action on this issue that we have been discussing for over a decade—the most efficient use of apheresis plasma from volunteer (unpaid) donors for further manufacturing, in a fashion consistent with the shipment of recovered plasma from volunteer whole blood donations.

Volunteer donor plasma is collected using apheresis, a method of collection. Clinical indications for plasma are the same regardless of the method of collection, whether from apheresis or whole blood collection. However, the Food and Drug Administration (FDA) requires that the apheresis derived plasma that is not transfused be left to expire (one year from the date of collection) before it can be relabeled and made available for further manufacturing. Ultimately, this expired plasma cannot be used for fractionation into high value, protein therapy products for patients; instead, it may only be used to manufacture diagnostic products. In contrast, plasma from whole blood donations that is not transfused may be converted at any time prior to outdate into recovered plasma for manufacture into essential patient therapies such as Factor VIII, IgIV and albumin.

We believe that either plasma product is clinically acceptable at any time before expiration for further manufacture into therapeutic products.

In Canada and in the European Union, the regulators make no distinction based on collection method. In these countries, plasma collected from whole blood donations and plasma from apheresis can be used either for transfusion purposes or labeled and sent to fractionators for further manufacture at any time after collection. As such, the regulatory component plasma.

Sincerely,

[Signatures]

American Blood Centers
It's About Life.
Dear Dr. Kiery,

I am writing to you to support the Rome Declaration on Achieving Self-Sufficiency in Safe Blood and Blood Products, based on Voluntary Non-Remunerated Donation.

We are writing to you on behalf of PLUS, the Platform of Plasma Protein Users, to express our serious concerns regarding the Rome Declaration on Achieving Self-Sufficiency in Safe Blood and Blood Products, based on Voluntary Non-Remunerated Donation (see enclosed) and request a meeting to further discuss.

PLUS is a consortium of several patient organizations representing people living with treatable rare plasma related disorders such as haemophilia, primary immunodeficiencies and apheresis accessibility among others.

We are extremely concerned with the Rome Declaration which in our view puts forward dangerous erroneous and misleading statements. We are quite sure such wording can easily lead to setbacks in treatments for patients relying on life-saving and life-enhancing plasma derived medicinal products, several of which are classified by WHO as essential medicines both for adults and children.

Today, the majority of safe and effective plasma derived medicinal products is produced from plasma obtained through apheresis (plasmapheresis donation), whilst a minority of these products is produced from plasma recovered from blood (plasma donation). Unfortunately, the supply of plasma-derived medicinal products is currently limited, and life-saving treatments which undergo strict regulatory approval processes. The European Medicines Agency recommends that there is a difference between products from voluntary non-remunerated donations and products from paid and remunerated donations.

According to estimates of the Market Research Bureau, in 2010, 32.8 million litres of plasma (recovered and apheresis) were collected worldwide. Of this amount, 20.4 million litres (62%) was collected in North America, 13.0 million litres (39%) in Europe, 2.4 million litres (7%) in Asia and 0.1 million litres (0.3%) in South America.

The American Plasma Users Coalition (APPLUS) is a coalition of national patient organizations created to address the unique needs of patients with rare diseases that use life-saving plasma protein therapies. Together our coalition represents more than 150,000 Americans living with chronic disorders who depend upon plasma protein therapies to lead healthy, productive lives.

We are writing to express concerns regarding the Rome Declaration on Achieving Self-Sufficiency in Safe Blood and Blood Products, based on Voluntary Non-Remunerated Donation.

We remain very concerned with the Rome Declaration, and we believe that the Rome Declaration recommendations may erroneously and dangerously impact access to treatments for patients relying on life-saving and life-enhancing plasma derived medicinal products, several of which are classified by WHO as essential medicines both for adults and children.

The US government already has a comprehensive national strategy for the safe and voluntary collection of blood and blood products under the Blood Safety and Availability Act of 2004, which sets national standards for all blood and blood products. This strategy includes strategies for education, research, and collaboration among stakeholders.

The Rome Declaration is an important initiative, and we believe that the following recommendations are essential:

- The Rome Declaration recognizes the importance of voluntary non-remunerated donation of plasma.
- The Rome Declaration acknowledges the role of plasma protein users in advocating for safe and voluntary donation of plasma.
- The Rome Declaration supports the development of new technologies for the collection of plasma.

We believe that the Rome Declaration recommendations are essential for the safe and voluntary collection of plasma.

Sufficiency in Safe Blood and Blood Products, based on Voluntary Non-Remunerated Donation.

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Building together upon shared goals

Working toward a common future