The Quest for Liquid Gold: Why Canada Should Provide Remuneration for Plasma Donations

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Abstract

This paper was originally written for Dr. Mark Lechner's HSCI 333 course *Red, Hot, and True: A Semester of Blood*. The assignment asked students to answer the question of 'what is blood', and to address how blood has properties that extend beyond biological function. The paper uses APA citation style.

Introduction

Voluntary, non-remunerated blood donation has been integral to the Canadian health system since 1946, when the Red Cross began collecting blood for soldiers fighting in World War II (Canadian Red Cross, 2020). In the 1970s and 1980s, over one thousand Canadians were infected with HIV and tens of thousands were infected with Hepatitis C due to contaminated blood transfusions (Krever, 1997). Following this "Tainted Blood Scandal" the responsibility of maintaining a safe and reliable national blood supply was assigned to the Canadian Blood Services (CBS) and Hema-Quebec (Krever, 1997; Canadian Red Cross, 2020). Presently, these two organizations collect and supply Canadians with not only whole blood, but also plasma, stem cells, organs, and tissues (CBS, 2020). However, over the past few decades, this system has become burdened with an increased demand for plasma products, such that the risk of shortages is a reality (CBS, 2020; Health Canada, 2013). Plasma is a major component of blood; it is a protein rich liquid that aids in transporting essential materials through the bloodstream (Health Canada, 2018a). Plasma is used for direct transfusion and also in the development of plasma-derived medicinal products (PDMPs), which are used as lifesaving treatments for patients with hemophilia and immunodeficiency conditions (CBS, 2019). To accommodate the need for PDMPs, Canada relies heavily on the United States and the global market to provide over 80% of plasma products consumed by Canadians (Health Canada, 2018b; CBS, 2019). Offering remuneration for donations is a viable solution to Canada's plasma shortage because there is significant evidence that paid plasma is safe, other countries have successfully used remuneration to increase supply, and it is possible to ameliorate the ethical concerns for donor well-being.

Paid Plasma is Safe

A common argument against providing payment for plasma is that incentives for donation can attract individuals at high risk of carrying communicable diseases and increase the frequency of donor dishonesty on screening questionnaires (Anderson, Newell, & Kilcoyne, 1999). However, while screening processes are valuable and necessary to the reduce risk of contaminating the supply of whole blood, plasma undergoes rigorous processing to allow for greater purification and removal of pathogens (Farrugia, Penrod, & Bult, 2015; CBS, 2020). Despite Canada's supply consisting mostly of US paid plasma, "Canada has not had a single case of Hepatitis B, Hepatitis C or HIV transmitted by a plasma product in the last 25 years" (Health Canada, 2018b; Health Canada, 2013). Both Health Canada and Canadian Blood Services emphasize that due to the current manufacturing process for plasma products, paid and unpaid plasma are now equally safe (2018b, 2020). Thus, the concern for plasma contamination is obsolete due to enhanced manufacturing processes.

Remuneration for Plasma Successfully Increases Supply

Another concern regarding the payment of plasma donors is that incentives can potentially jeopardize Canada's supply of whole blood. For many Canadians, altruism is an important aspect of donating blood (Dufner, 2015). If remuneration is provided for plasma donations, those who regularly donate blood for altruistic reasons may be dissuaded from donating whole blood or, on the contrary, be convinced to donate plasma instead (Niza, Tung, & Marteau, 2013; White, 2015). However, paid plasma systems can coexist successfully alongside non-remunerated whole blood donation systems, without reducing whole blood supply. This is illustrated by the fact that Germany, Austria, the Czech Republic, and the United States not only collect high volumes of paid plasma, but also have some of the highest collection rates of whole blood in the world (Becker, Klüter, Niessen-Ruenzi, & Weber, 2019; Health Canada, 2013). For every 1000 people, Germany collects 58.1 blood donations, Austria collects 57.7, the US collects 56.9, and Canada collects 36.6 (Health Canada, 2013). Countries running on parallel systems of paid plasma and unpaid whole blood collect nearly twice the volume of Canada per 1000 people (Health Canada, 2013). There is also a local example of the paid plasma company Cangene, which has been compensating Winnipeg residents for plasma over the past 30 years, with no observed decline in volunteer whole blood donation (Panitch & Horne, 2019; Health Canada 2013). Therefore, providing financial incentives in Canada is a possible method to increase plasma donations, while also preserving whole blood supplies.

Ethical Concerns

Providing payment for plasma donation poses several questions about coercion, consent, and risk to vulnerable populations. For many Canadians, incentives for

plasma donation can act as a pleasant addition to their current income. However, for others, compensation may be an offer that cannot be refused (Panitch & Horne, 2019). For example, in the United States there is evidence that plasma donation has become a source of income for the homeless as well as a source of supplementary income for some students (Anderson et al., 1999; Ferguson, Bender, Thompson, Xie, & Pollio, 2011). For individuals desperate for money, plasma donation can become a situation where real consent cannot be provided and donors may disregard the risks involved in donation (Panitch & Horne, 2019). Providing remuneration for donating plasma is similar to the situation of compensated research participants who face risk of harm by volunteering their time. To reduce the risk of participation in research, volunteers are screened, made aware of potential harms, and reassessed following the experiment. For plasma donation, strong screening processes, regular health checks, strict donation frequency limits, and record keeping could protect donor health and greatly reduce the risks of plasma donation (Dufner, 2015). Another concern is that private companies may take advantage of these vulnerable individuals for financial gain. For instance, the private for-profit company, Canadian Plasma Resources controversially opened its first two paid plasma clinics in poor neighbourhoods of Saskatoon and Moncton (White, 2015). To halt exploitation of plasma donors, Canada could adopt a national not-for-profit organization or expand CBS responsibilities to the collection of plasma and distribution of compensation. Canada could also assemble an ethics board responsible for evaluating and monitoring donor rights. While risks to donors can never be fully eliminated, to argue that it is unethical or unjust of Canada to adopt paid plasma programs is hypocritical. Canada currently relies on paid plasma donors in the United States to cover most of Canadian demand (CBS, 2019). Canada has no control over how these donors are recruited or compensated. Rather than assuming other countries are taking care of volunteers, Canada should either investigate the safety and ethics of supplier plasma donors or use Canadian plasma and design a system to maximize donor safety.

Self Sufficiency

After the tainted blood scandal, Judge Horace Krever lead an inquiry into how the tragedy occurred and published the Krever Commission in 1997. The commission was intended to give guidance on how to manage and maintain a national blood program (Krever, 1997). The two recommendations that are relevant in opposition of paid plasma are that "a voluntary system should be maintained" and that "self-sufficiency should be encouraged" (Krever, 1997, p.103). These instructions are very similar to the World Health Organization's (WHO) suggestion that all countries should "develop national blood systems based on voluntary unpaid donations and to work towards the goal of self-sufficiency" (2019). However, very few countries fulfill these two goals. Out of the 173

reporting WHO countries, only 56 countries were able to source 99% of their blood supply from voluntary non-remunerated blood donations (WHO, 2019). Additionally, only 50 WHO countries were able to produce their own PDMPs from locally collected plasma (WHO, 2019). The lack of success of other countries in achieving self-sufficiency through non-remunerated blood donations indicates that satisfying both goals is a very difficult task. Canada is currently neither self-sufficient nor entirely reliant on non-remunerated blood (CBS, 2020). With the introduction of a paid plasma system, Canada would at least be able to progress towards one of the recommendations from the WHO and Krever Report by becoming more self-sufficient.

Conclusion

The need for plasma products is not going away. PDMPs are vital for the treatment of many Canadians with life-threatening conditions (Health Canada, 2018a). With Canada's current demand for plasma, donations would have to increase by 300% to fulfill the needs of Canadians (Health Canada, 2013). With the increasing demand for plasma and Canada's already high dependence on international sources, it is time for Canada to raise domestic collection and begin advancing towards self-sufficiency. Other countries have successful systems of paid plasma that provide safe and adequate resources, especially since the technology for processing plasma has been vastly improved (O'Mahony, 2013; Health Canada, 2013; Becker et al., 2019). In adopting a system to pay donors for plasma, Canada could take control of monitoring the health and safety of plasma donors, fulfill goals identified by the Krever Report and the WHO, and increase Canadian supplies of plasma.

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