

# DE GESCHIEDENIS VAN BLOEDTRANSFUSIE

## BACK TO THE BASICS IN HISTORISCH PERSPECTIEF



Kliniek van Bloedtransfusie – Back to the Basics

Dr. Henk Russcher

Klinisch chemicus – bloedtransfusiespecialist

Erasmus MC  
University Medical Center Rotterdam



Bloed is leven



EVERY DROP COUNTS



GIVE THE GIFT OF LIFE  
GIVE BLOOD

NATIONAL BLOOD DONOR MONTH, JANUARY

ErasmusMC





# 1999



# Christelijke religie: Fons Vitae



1492



**Innocent VIII**





RICHARD LOWER. M. D.  
*Ætatis Suae. 55.*

TRACTATUS  
DE  
CORDE.

ITEM  
De Motu & Colore  
SANGUINIS  
ET  
*Chyli in eum Transitu.*

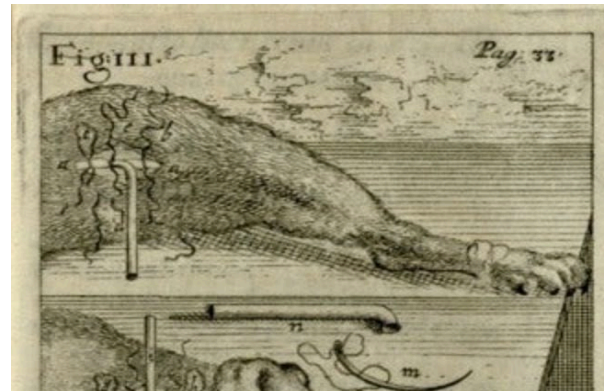
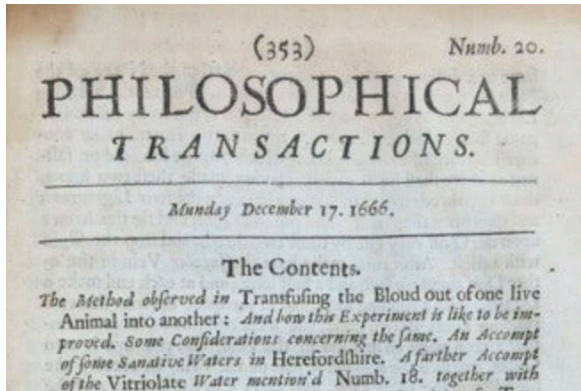
---

AUTHORE  
*Richardo Lower, M. D.*

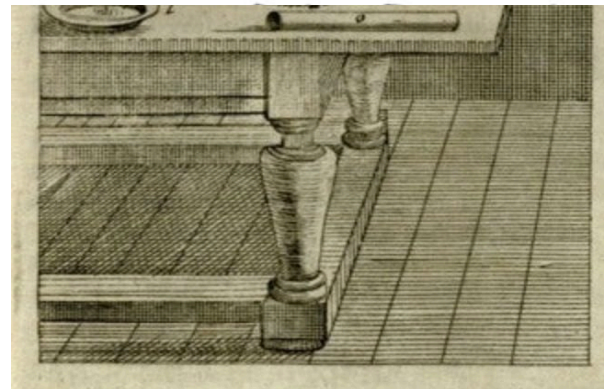
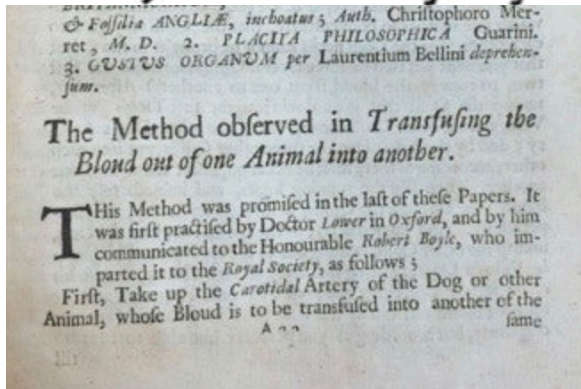
---

LONDINI:

Typis Jo. Redmayne impensis Jacobi  
*Allestry ad Insigne Rosa-Coronatæ*  
in Vico vulgò dicto *Duck-*  
*lane. MDCLXIX.*



till the other Dog begin to cry, and faint, and fall into Convulsions, and at last dye by his side.







(385)

Numb. 22.

# PHILOSOPHICAL TRANSACTIONS.

Monday, February 11. 1666.

## The Contents.

*Trials proposed to be made for the Improvement of the Experiment of Transfusing Blood out of one live Animal into another. A Method for Observing the Eclipses of the Moon, free from the Common Inconveniences. An Account of some Celestial Observations lately made at Madrid. Extract of a Letter, lately written to the Publisher, containing some Observations about Insects and their Innoxiousness, &c. An Account of some Books, vid. I. TOME TROISIEME DES LETTRES DE M. DESCARTES. II. ASTRONOMIA REFORMATA P. RICCIOLI. III. ANATOMIE MEDULLÆ SPINALIS ET NERVORUM, inde provententium, GERARDI BLASII, M. D. An Advertisement about the re-printing of M. Evelyns Sylva and Pomona. A Table of the Transactions, printed these two years.*

*Trials proposed by Mr. Boyle to Dr. Lower, to be made by him, for the improvement of Transfusing Blood out of one live Animal into another; promised Numb. 20. p. 357.*

**T**he following *Queries* and *Trials* were written long since, and read about a Month ago in the *R. Society*, and do now come forth against the Authors intention, at the earnest desire of some Learned Persons, and particularly of the worthy *Doctor*, to whom they were addressed; who thinks, they may excite and assist others in a matter, which, to be well prosecuted, will require many hands. At the reading of them, the *Author* declared, that of divers of them he thought he could fore-see the Events, but

E e e

yet

Erasmus MC

*Erasmus*

yet judged it fit, not to omit them, because the Importance of the *Theories*, they may give light to, may make the Tryals recompense the pains, whether the success favour the *Affirmative* or the *Negative* of the Question, by enabling us to determine the one or the other upon surer grounds, than we could otherwise do. And this Advertisement he desires may be applied to those other Papers of his, that consist of *Queries* or proposed *Tryals*.

*The Queries themselves follow.*

Whether by this way of Transfusing Blood, the disposition

**Verandert het ras van de hond na een bloedtransfusie?**

*use versa, &c.?*

**Verandert een laffe hond in een moedige als je hem bloed geeft van een moedige hond?**

Operation?

**Zal hij zijn baasje nog herkennen als hij bloed heeft gehad van een vreemde hond?**

in point of scent?

**Kun je een ongetrainde hond gehoorzaam maken door hem bloed te geven van een getrainde hond?**

5. Whether any considerable change is to be observed in the Pulse, Urin, and other Excrements of the *Recipient* Animal, by

**Wordt een hongerige hond minder hongerig na een transfusie van een net gevoede hond?**

fore hunger, will lose his appetite, more than if the *Emitting* Dogs blood had not been so chylous? And how long, upon a Vein

Vein opened of a Dog, the admitted blood will be found to retain *Chyle*?

7. Whether a Dog may be kept alive without eating by the frequent Injection of the Chyle of another, taken freshly from the Receptacle, into the Veins of the *Recipient* Dog?

8. Whether a Dog, that is *sick* of some disease chiefly imputable to the mass of blood, may be cured by exchanging it for that of a *sound* Dog? And whether a *sound* Dog may receive such diseases from the blood of a *sick* one, as are not otherwise of an infectious nature?

9. What will be the Operation of frequently stocking (which is feasible enough) an *old* and feeble Dog with the blood of *young* ones, as to liveliness, dulness, drowsiness, squeamishness, &c. *et vice versa*?

10. Whether a *small* young Dog, by being often fresh stocked with the blood of a young Dog of a *larger* kind, will grow bigger, than the ordinary size of his own kind?

11. Whether any Medicated Liquors may be injected together with the blood into the *Recipient* Dog? And in case they may, whether there will be any considerable difference found between the separations made on this occasion, and those which would be made, in case such Medicated Liquors had been injected with some other Vehicle, or alone, or taken in at the mouth?

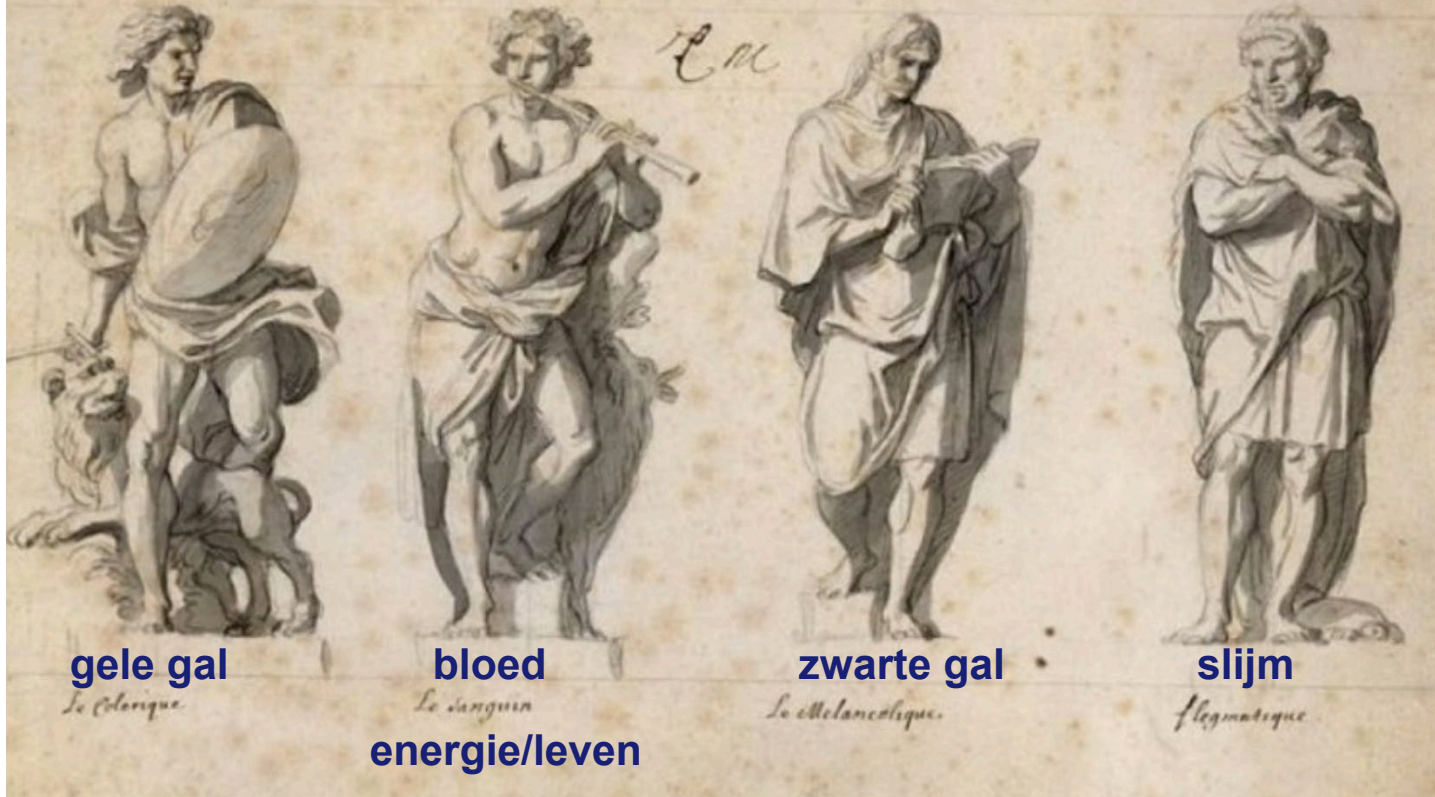
12. Whether a Purging Medicine, being given to the *Emitting* Dog a while before the Operation, the *Recipient* Dog will be thereby purged, and how? (which Experiment may be hugely varied.)

13. Whether the Operation may be successfully practis'd, in case the injected blood be that of an Animal of another *Species*, as of a *Calf* into a *Dog*, &c. and of a *Cold* Animal, as of a *Fish*, or *Frog*, or *Tortoise*, into the Vessels of a *Hot* Animal, and *vice versa*?

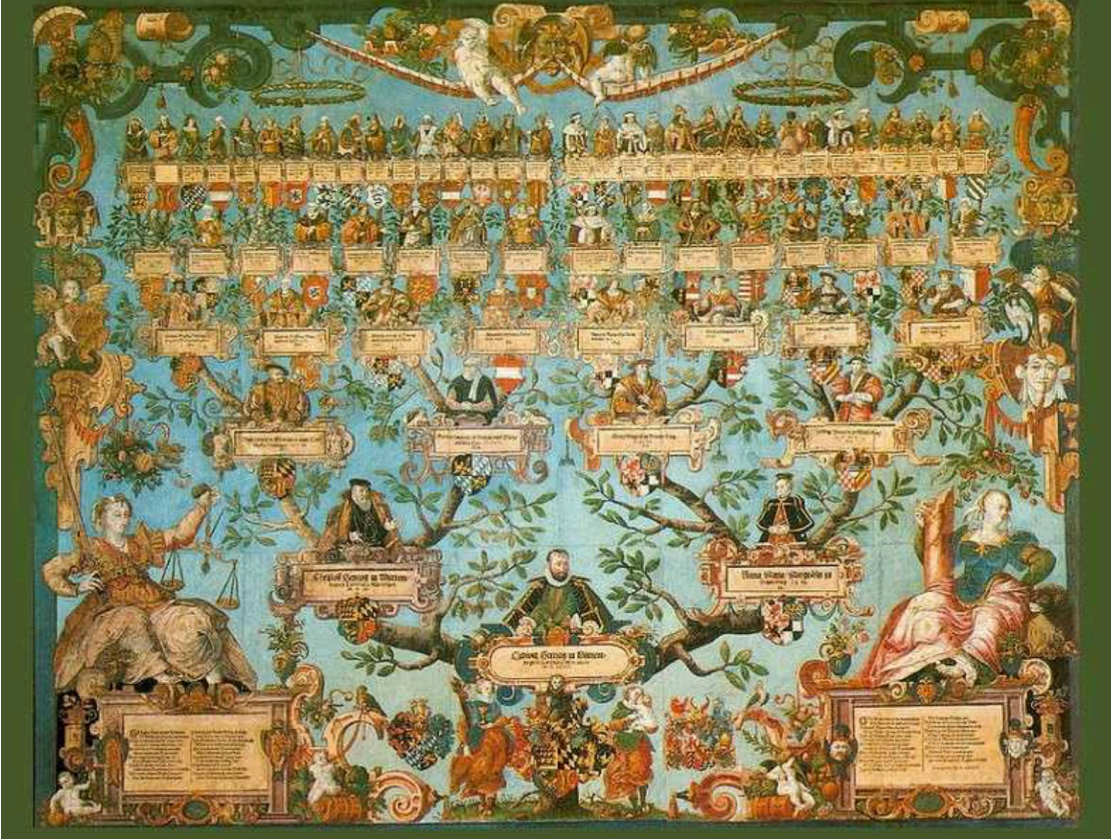
14. Whether the *Colour* of the Hair or Feathers of the *Recipient* Animal, by the frequent repeating of this Operation, will be changed into that of the *Emitting*?

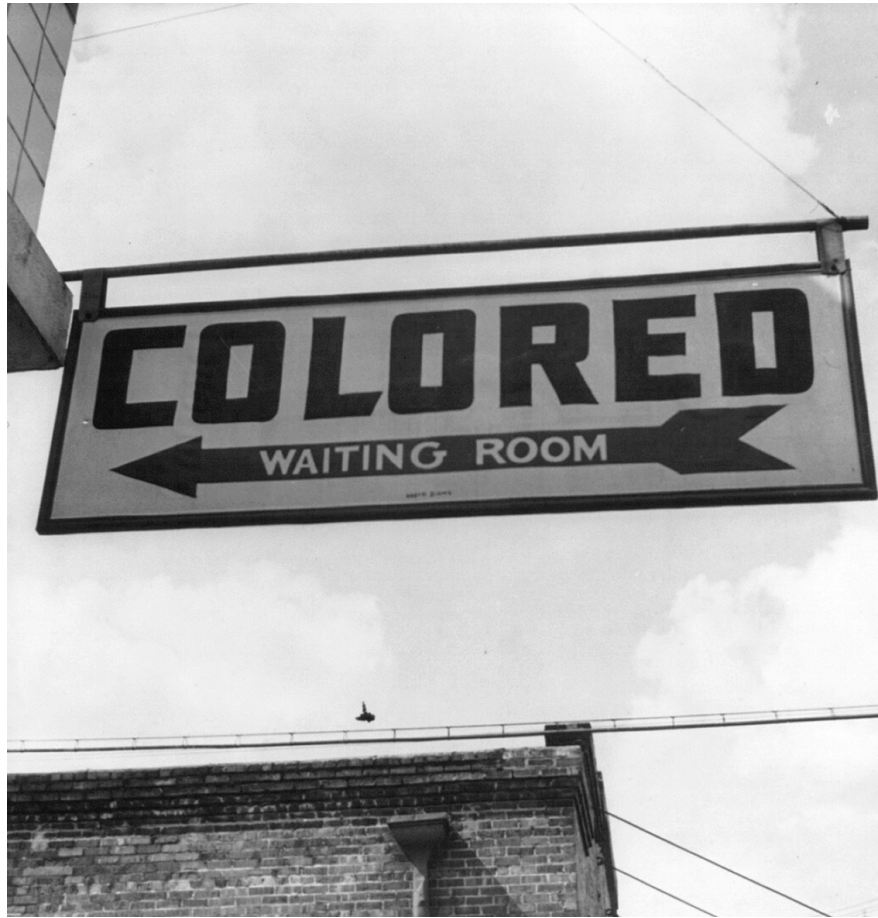
15. Whether by frequently transfusing into the same Dog, the blood of some Animal of another *Species*, something further, and more tending to some degrees of a change of *Species*, may

*Les quatre Complexions de l'homme.*  
**Je karakter zit in je lichaamssappen: Humeurenleer**



# Zuivere bloedlijn





This is an image



# Parents refusing vaccinated donor blood case: What you need to know

11:14 pm on 7 December 2022

Share this



**Lauren Crimp**, Reporter

[@laurencrimp](#) [✉ lauren.crimp@rnz.co.nz](mailto:lauren.crimp@rnz.co.nz)





Part 3. Cap. 40.

(557) Numb. 30

# PHILOSOPHICAL TRANSACTIONS.

Monday, December 9. 1667.

## The Contents.

An Account of the Experiment of Transfusion, practis'd upon a Man in London. A Narrative of some Trials of Transfusion, lately made in France. Some New Experiments of Injecting medicated Liquors into humane Veins, together with some considerable Cures performed thereby. An Extract of a Letter written from the Bermudas, giving an Account of the Course of the Tides there: of Wells both salt and sweet, digg'd near the Seas, of the Whale fishing there practis'd since, and of such whales, as have the Sperma Ceti in them. A Method for finding the Number of the Julian Period, for any year assign'd, the Number of the Cycle of the Sun, the Cycle of the Moon, and of the Inditions, for the same year, being given. An Account of some Books. I. PETRI LAMBECHII LIB. PRIMUS PRODRROMI HISTORIE LITERARIE. II. THOMÆ CORNELII PROGYNMASMATA PHYSICA. III. LES ESSAYS de PHYSIQUE du Sieur de LAUNAY. IV. FRANCISCI DU LAURENS SPECIMINA MATHEMATICA, duobus Libris comprehenâ.

An Account  
Of the Experiment of Transfusion, practis'd upon a  
Man in London.

This was perform'd, Novemb. 23. 1667. upon one Mr. Arthur Coga, at Arundel-house, in the presence of many considerable and intelligent persons, by the management of those two Learned Physicians and dextrous Anatomists Dr. Richard Lower, and Dr. Edmund King, the latter of whom communicateth the Relation of it, as follows.

**T**he Experiment of Transfusion of Blood into an humane Vein was made by Us in this manner. Having prepar'd the

1667  
Arthur Coga  
Psychisch labiel  
geleerd



1818



James Blundell c. 1820. Engraving by John Cochran.

James Blundell

# THE LANCET.

Vol. II.]

LONDON, SATURDAY, JUNE 13.

[1828-9.

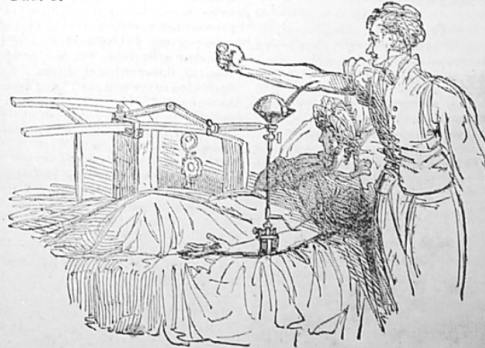
## OBSERVATIONS ON TRANSFUSION OF BLOOD. By DR. BLUNDELL.

*With a Description of his Gravitator.\**

STATES of the body really requiring the infusion of blood into the veins are probably rare; yet we sometimes meet with cases in which the patient must die unless such operation can be performed; and still more frequently with cases which seem to require a supply of blood, in order to prevent the ill health which usually arises from large losses of the vital fluid, even when they do not prove fatal.

\* The instrument is manufactured by Messrs. Maw, 55, Aldermanbury.

Tab. I.



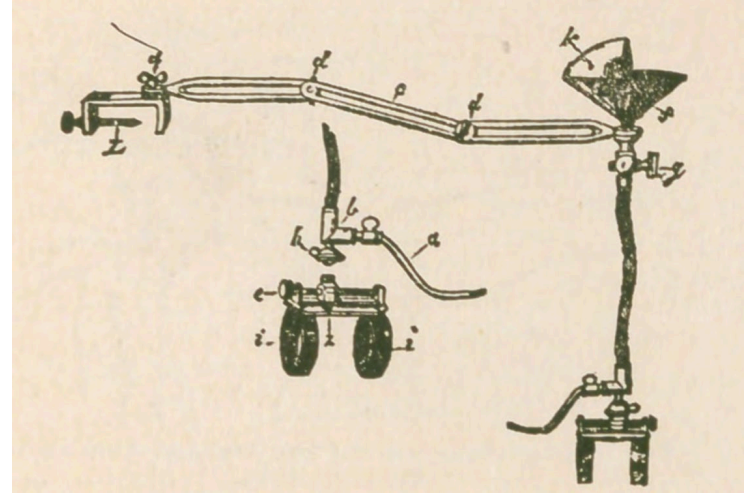
No. 302.

Y

In the present state of our knowledge respecting the operation, although it has not been clearly shown to have proved fatal in any one instance, yet not to mention possible, though unknown risks, inflammation of the arm has certainly been produced by it on one or two occasions; and therefore it seems right, as the operation now stands, to confine transfusion to the first class of cases only, namely, those in which there seems to be no hope for the patient, unless blood can be thrown into the veins.

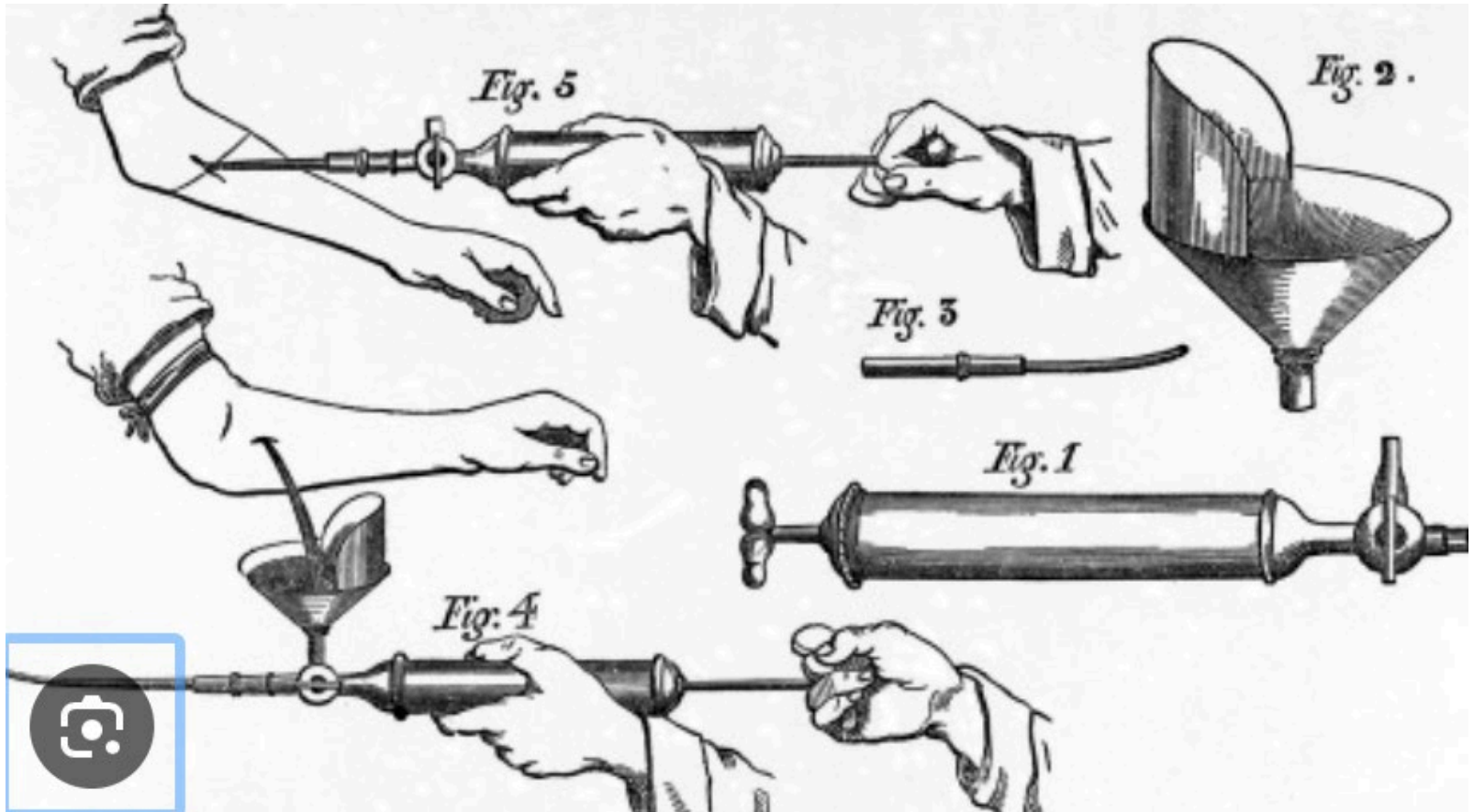
The object of the Gravitator is, to give help in this last extremity, by transmitting the blood in a regulated stream from one individual to another, with as little exposure as may be to air, cold, and inanimate surface; ordinary venesection being the only operation performed on the person who emits the blood; and the insertion of a small tube into the vein usually laid open in bleeding, being all the operation which it is necessary to execute on the person who receives it.

The following plate represents the whole apparatus connected for use and in action:—



Erasmus MC







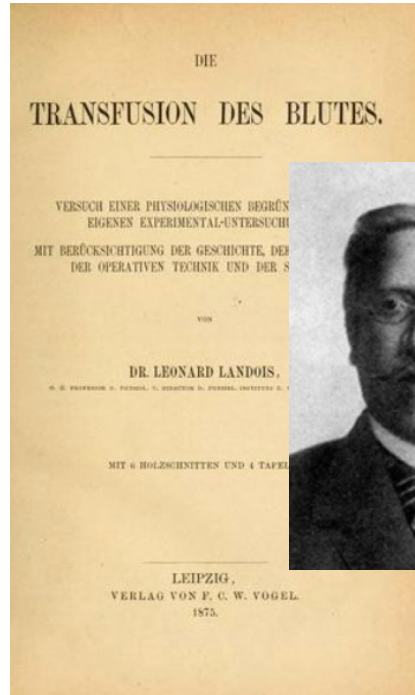
# 1869



Fig 1. Adolf Creite, about 1920. Obtained from Voswinckel (1992), ©1993 Blackwell Wissenschafts-Verlag, Berlin.

8 ml of serum obtained from calf, pig, dog, sheep, cat, chicken, duck and goat into rabbits → blutgefärbter Harn

# 1875



*Lysis: auflösen; for agglutination, Zusammenballung (ball formation) or klebrige Klumpen (sticky clumps).*

# 1901



Tabelle III, betreffend das Blut von fünf Puerperae und sechs Placenten (Nabelschnurblut).

Sera						
Lust. . . . .	+	+	-	-	-	+
Tomsch. . . . .	-	-	+	-	-	-
Mittelb. . . . .	-	-	+	-	-	-
Seil. . . . .	-	-	+	-	-	-
Linsm. . . . .	+	+	-	-	-	+
Blutkörperchen von:						
	Trautm.	Linsm.	Seil.	Freib.	Graupn.	Mittelb.

*1890: ontdekking immuunsysteem  
En antistoffen tegen tetanus antitoxine  
1939: Rhesus; 1946: Kell*

Erasmus MC



Alleen directe bloedtransfusie was mogelijk, maar dat veranderde met de ontdekking van de anticoagulerende werking van natriumcitraat. WO-I en WO-II versnelde het bewaren van bloed in 'bloedbanken'.







He gave *his* blood.  
Will you  
*give yours?*



**Blood  
for the  
Armed Forces**

**Enlist through Your Union  
As a Red Cross Blood Donor**

FIGURE 23.—Posters used by American Red Cross for recruiting blood donors.



IF HE SHOULD FALL IS YOUR BLOOD THERE TO SAVE HIM?

THE ARMY BLOOD TRANSFUSION SERVICE NEEDS  
**BLOOD DONORS**

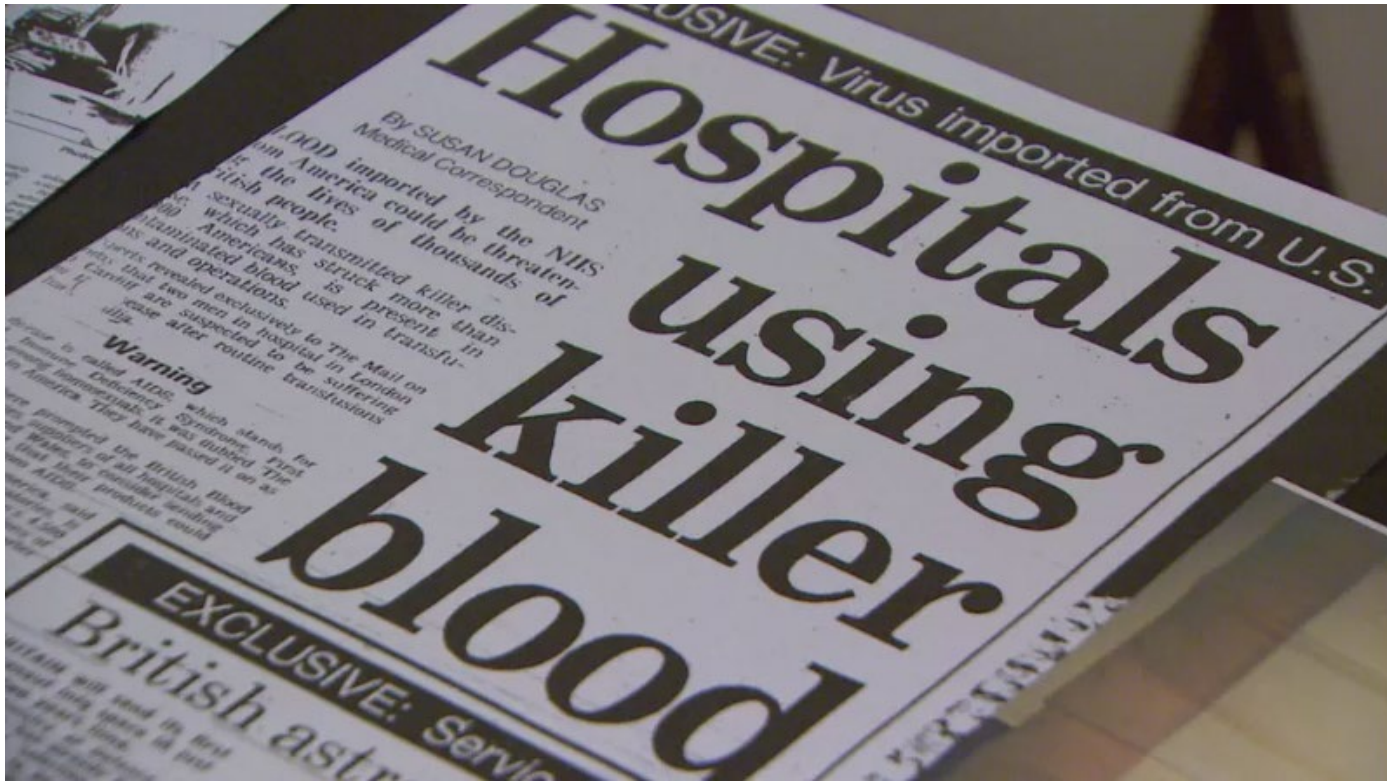


**GIVE YOUR BLOOD  
TO SAVE A LIFE**

AMERICAN NATIONAL RED CROSS  
**BLOOD DONOR SERVICE**

PLEASE DO NOT STEAL THIS POSTER. ITS  
PURPOSE IS TO SAVE LIVES, NOT TO BE  
PART OF A BOY'S POSTER COLLECTION.

# Schandalen





# BACKGROUND TO THE TAINTED BLOOD SCANDAL



**CANADIAN  
RED CROSS**

FROM 1946-1998 THE CANADIAN NATIONAL BLOOD SUPPLY WAS MANAGED BY THE CANADIAN RED CROSS. IN THE LATE 1970S, 1980S AND THE EARLY 1990S, CANADA EXPERIENCED ITS WORST EVER PREVENTABLE PUBLIC HEALTH DISASTER. BLOOD CONTAMINATED WITH TWO INFECTIOUS DISEASES: HUMAN IMMUNODEFICIENCY VIRUS (HIV) AND HEPATITIS C VIRUS WAS GIVEN TO CANADIAN PATIENTS TO TREAT THEIR ILLNESSES OR DURING SURGERY, EVEN AFTER TESTS WERE AVAILABLE TO DETECT THE PRESENCE OF BOTH DISEASES IN BLOOD DONATIONS.

THE EFFECTS OF DELAYING TO TEST DONATED BLOOD AND BLOOD PRODUCTS CAUSED UNTOLD DAMAGE AND DEATH TO THE LIVES OF INNOCENT PEOPLE WHO SOUGHT OUT MEDICAL ASSISTANCE AND DAMAGED THE PUBLIC TRUST IN THE MEDICAL SYSTEM IN CANADA.

CANADA'S NATIONAL NEWSPAPER

# THE GLOBE AND MAIL

149th year, No. 44,602 ©1992

Toronto, Wednesday, November 18, 1992

50 cents GST included in price  
higher outside major centres

Sunny, High -3

## FIRST COLUMN

### Reforming the system

Welfare-reform experiments in New Brunswick and British Columbia could become the inspiration for an ambitious federal plan to overhaul Canada's social programs, Health Minister Benoit Bouchard told reporters yesterday. "It could be applied all across the country. We have to see first the results in New Brunswick. It's absolutely paramount, in my view, that we adjust the policies." More than 1,300 single parents in New Brunswick will get federal money as an incentive to leave welfare and take low-paying jobs in the work force. Under the three-year experiment, they will get a special income supplement, boosting their earnings from minimum-wage jobs and other low-paying work that would normally be less attractive than welfare. The federal payments will be 50 per cent of the difference between their wages and a target income of \$30,000. A similar experiment is to begin next year in B.C.

Details — A5

**TAINTED TREATMENT** / *Canadians who contracted the AIDS virus from clotting products are asking tough questions*

## Hemophiliacs pay a deadly price

BY ANDRÉ PICARD  
Quebec Bureau  
Montreal

**F**RANÇOIS, Roger and Gérard Blanchard all died of AIDS within six months of each other. Now their brother Claude is dying too, and so is his wife Raymonde.

The four brothers, from Alardville, N.B., were all hemophiliacs. They, like almost 700 others with the clotting disorder, contracted the AIDS virus from blood products approved by the Canadian government and dis-

### BAD BLOOD

A life sentence

FIRST OF TWO PARTS

tributed by the Canadian Red Cross.

Their story and that of their fellow hemophiliacs has been one of silent suffering, a story lost in the larger tragedy of AIDS and the public's ignorance about hemophilia.

François, 35, Roger, 37, and Gérard, 43, were too busy trying

to live out their lives in dignity to make much of a fuss. Physical suffering, economic hardship and social stigma limited their battle to daily survival, with no time to search for explanations.

Yet people like Claude and Raymonde are beginning to ask the tough questions about Canada's tainted-blood scandal: How did this happen? Who is responsible? Can it happen again?

Contaminated blood products already have left 43 per cent of the country's hemophiliacs with the human immunodeficiency

virus, which causes AIDS. Half of those have developed AIDS symptoms, and that proportion is expected to reach 90 per cent in the next couple of years.

"Canadians shouldn't accept that this was just some accident. Me and my wife and my brothers were poisoned, and the guilty parties should be brought to justice," Claude Blanchard said in an interview. He and his wife are 34.

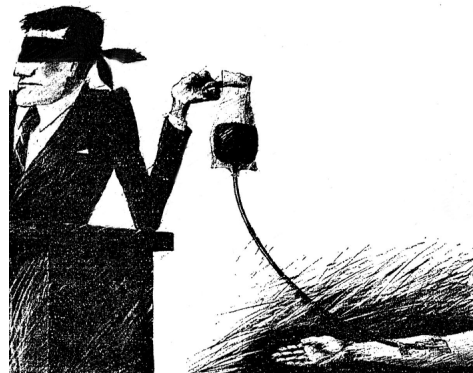
In France, the former head of the national blood bank and two other senior civil servants have been convicted of criminal negli-

gence for allowing AIDS-tainted blood to be distributed to hemophiliacs.

A special court will convene to hear charges against a former prime minister, a health minister and a social affairs minister.

In Canada, where the basic facts of the tainted-blood scandal are hauntingly similar to those in France, no one has been called on the carpet. Federal Health Minister Benoit Bouchard has said a public inquiry is out of the question.

Please see BLOOD — A4



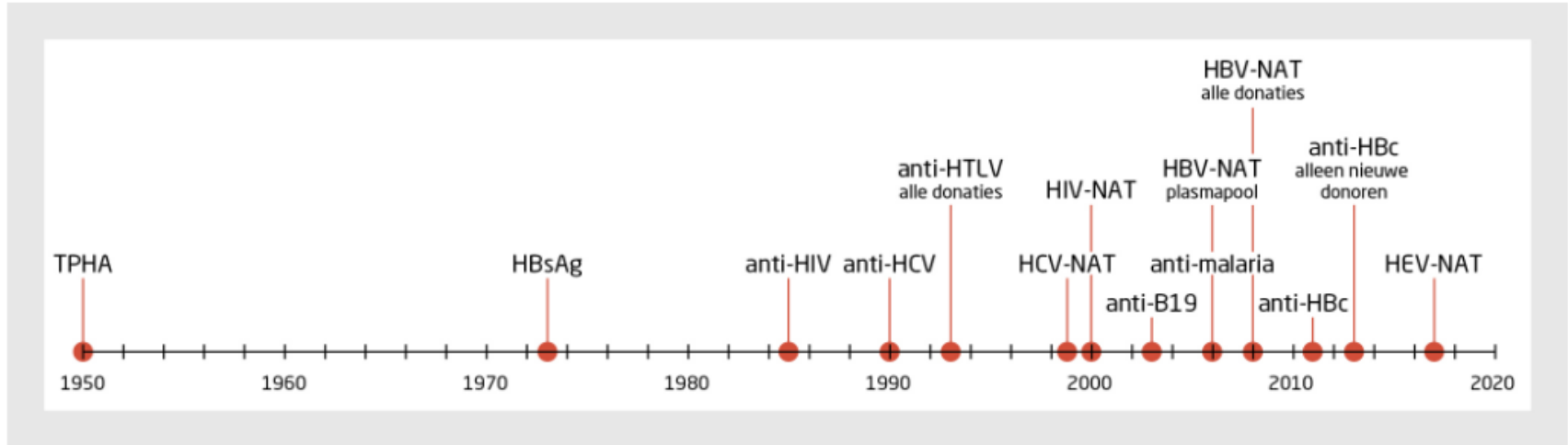
How did this happen? Who is responsible? Can it happen again?  
MAREK CEZKIEWICZ

Erasmus MC

*Erasmus*



## Introductie van screeningstests in Nederland



Weergegeven is in welke jaren de tests van bloeddones op ziekteverwekkers in Nederland werden ingevoerd. TPHA = Treponema pallidum-hemagglutinatietest; HBsAg = hepatitis B-oppervlakteantigeen; HBc = hepatitis B-core-antigeen; HIV = humaan immunodeficiëntievirus; HBV = hepatitis B-virus; HCV = hepatitis C-virus; HEV = hepatitis E-virus; HTLV = humaan T-lymfotroop virus; NAT = nucleïnezuuramplificatietest; B19 = parvovirus B19.

## het levensbelang van hemofiliepatiënten. Wat weegt nou zwaarder?

### Angst

Voor hemofiliepatiënten brak een zware tijd aan. In 1984 bleken al vier Nederlandse patiënten met het hiv besmet te zijn. In de jaren daarna steeg het aantal diagnoses sterk, met als dieptepunt 1991, met 19 nieuwe gevallen. Uiteindelijk liep het totale getal op tot 170 zieken: ongeveer 13 procent van alle hemofiliepatiënten. In heel Europa raakte meer dan 35 procent van alle patiënten besmet, met Frankrijk als uitschieter. Daar kreeg 81 procent van deze groep het virus. Waarschijnlijk zijn er in Nederland nog eens 150 niet-hemofiliepatiënten door bloedtransfusies geïnfecteerd geraakt. Vanwege privacy is het aantal aids-patiënten hier echter nooit geregistreerd, dus hoeveel mensen er precies door bloedproducten besmet zijn geraakt is niet bekend.

# Anno 2023

