D.A. 5-4-93



CLERK, SUPREME COURT

By_____Chief Deputy Clerk

Supreme Court of Florida

Case No. 80, 311

In re: Matter of Patricia Dubreuil,

Petitioner,

VS.

South Broward Hospital District,

Respondent.

On Discretionary Review of the District Court of Appeal, Fourth District—No. 90-1295

BRIEF OF AMICUS CURIAE WATCHTOWER BIBLE AND TRACT SOCIETY OF NEW YORK, INC.

WILLIAM E. HOEY, ESQ.
222 U.S. Highway One - Suite 213
Tequesta, FL 33469
(407) 747-2050
Attorney for Amicus Curiae
Watchtower Bible and Tract
Society of New York, Inc.

Table of Citations

Page
Cases
Cooper v. Wiley, 513 N.Y.S.2d 151 (App. Div. 1987)
Dubreuil, In re, 603 So. 2d 538 (Fla. 4th DCA 1992)
Fosmire v. Nicoleau, 551 N.E.2d 77 (N.Y. 1990) 4
Illinois v. Allen, 397 U.S. 337, 90 S. Ct. 1057, 25 L. Ed. 2d 353 (1970)
Jefferson v. Griffin Spalding County Hosp. Auth., 274 S.E.2d 457 (Ga. 1981)
McKenzie v. Doctors' Hosp. of Hollywood, Inc., 765 F. Supp. 1504 (S.D. Fla. 1991)
Mercy Hosp., Inc. v. Jackson, 489 A.2d 1130 (Md. Ct. Spec. App. 1985)
Norwood Hosp. v. Munoz, 564 N.E.2d 1017 (Mass. 1991)
Olmstead v. United States, 277 U.S. 438, 48 S. Ct. 564, 72 L. Ed. 944 (1928)
Osborne, In re 294 A.2d 372 (D.C. 1972)
Public Health Trust v. Wons, 541 So. 2d 96 (Fla. 1989) 4
West Virginia State Board of Education v. Barnette, 319 U.S. 624, 63 S. Ct. 1178, 87 L. Ed. 1628 (1943)
<i>W.M.</i> , <i>In re</i> , 823 S.W.2d 128 (Mo. Ct. App. 1992)

Books

G. Archer, Encyclopedia of Bible Difficulties (1982)
The Extant Works of Aretæus, the Cappadocian (F. Adams trans. & ed. London 1856)
T. Bartholin, De Sanguinis Abusu Disputatio (Frankfurt 1676)
J. Benson, The Holy Bible, Containing the Old and New Testaments (New York 1839)
J. Calvin, Commentary on the Acts of the Apostles (J. Fraser trans. 1966)
Davis-Christopher, <i>Textbook of Surgery</i> (D. Sabiston 10th ed. 1977)
M. Felix, Octavius (Loeb Classical Library 1977)
 Fosburg & Kevy, Red Cell Transfusion, in 2 Hematology of Infancy and Childhood (D. Nathan & F. Oski 3d eds. 1987)
C. Fried, Right and Wrong (1978)
The Complete Works of the Rev. Andrew Fuller (n.p. 1842)
P. Hagen, Blood: Gift or Merchandise (1982) 5, 6, 7
C. Hefele, A History of the Councils of the Church, from the Original Documents (1896)
Diario Della Cittá di Roma di Stefano Infessura (O. Tommasini ed. 1890)
Health Law Center, The Hospital Law Manual (Supp. 1990)
W. Jones, The History of the Christian Church (n.p. 1837)
J. Kaye, The Ecclesiastical History of the Second and Third Centuries (3d ed. London 1845)

Lidz & Meisel, Informed Consent and the Structure of Medical Care, in 2 President's Commission, Making Health Care Decisions (1982)
Luther's Works (E. Gritsch ed. n.d.)
Masouredis, Preservation and Clinical Use of Erythrocytes and Whole Blood in W. Williams, E. Beutler, A. Erslev & M. Lichtman, Hematology (4th ed. 1990)
McClintock and Strong's Cyclopædia of Biblical, Theological and Ecclesiastical Literature (reprint 1981)
I. Newton, The Chronology of Antient Kingdoms Amended (Dublin 1728)
S. Parpola, Letters from Assyrian Scholars to the Kings Esarhaddon and Assurbanipal (Neukirchen-Vluyn 1970)
L. Payer, <i>Medicine & Culture</i> (1988)
President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, Deciding to Forego Life-Sustaining Treatment: Ethical, Medical and Legal Issues in Treatment Decisions (1983)
President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, Making Health Care Decisions: The Ethical and Legal Implications of Informed Consent in the Patient- Practitioner Relationship (1982)
The Theological and Miscellaneous Works, &c. of Joseph Priestley (reprint 1972)15
Report of the Presidential Commission on the Human Immunodeficiency Virus Epidemic (1988)
E. Reuss, La Bible: La Théologie Johannique (1879)
G. Ricciotti, The Acts of the Apostles (1958)
B. Santinelli, Confusio Transfusionis, sive Confutatio Operationis Transfundentis Sanguinem de Individuo ad Individuum (Rome 1668)

B. Seeman, The River of Life (1961) 5
R. Tannahill, Flesh and Blood —A History of the Cannibal Complex (1975)
Tertullian (C. Dodgson trans. n.p. 1842)
Tertullian, Apologetical Works (R. Arbesmann trans. 1950)
Tertullian, Apology (Loeb Classical Library, T. Glover trans. 1931)
U.S. Congress, Office of Technology Assessment Task Force, Blood Technologies, Services, and Issues (1988) 23, 24, 25
Watch Tower Bible & Tract Soc'y Pa., Blood, Medicine, and the Law of God (1961)
Watch Tower Bible & Tract Soc'y Pa., How Can Blood Save Your Life? (1990) 18, 34
Watch Tower Bible & Tract Soc'y Pa., Jehovah's Witnesses and the Question of Blood (1977) 4, 18, 34
L. Waterbury, Hematology for the House Officer (3d ed. 1988)
 Wilson, Complications of Blood Transfusion, in Complications in Surgery and Their Management (C. Artz & J. Hardy eds. 1960)
M. Wintrobe, Clinical Hematology (8th ed. 1981)
Zauder, How Did We Get a "Magic Number" for Preoperative Hematocrit/ Hemoglobin Level?, in Perioperative Red Cell Transfusion: Program and Abstracts (June 27.20, 1088)
Program and Abstracts (June 27-29, 1988)

Recognitions of Clement, in VIII The Ante-Nicene Fathers (A. Roberts & J. Donaldson eds. n.d.)
The Clementine Homilies, in VIII The Ante-Nicene Fathers (A. Roberts & J. Donaldson eds. n.d.)
de Courcelles, Diatriba de Esu Sanguinis Inter Christianos, in Opera Theologica (Amsterdam 1675)14
Eusebius, in I The Ecclesiastical History (Loeb Classical Library 1980)
Origen Against Celsus, in IV The Ante-Nicene Fathers (A. Roberts & J. Donaldson eds. 1956)
Origen's Commentary on Matthew, in X The Ante-Nicene Fathers (A. Menzies ed. n.d.)
Regino, <i>Libri Duo de Ecclesiastics Disciplinis et</i> <i>Religione Christiana</i> , in 132 Patrologiæ Latina (J. Migne ed. Paris 1853)
Solomon, <i>A History of Transfusion Medicine</i> , in III Amer. Assoc. Blood Banks, Administrative Manual (A. Ross ed. 1990)
The Stromata, or Miscellanies, in II The Ante-Nicene Fathers (A. Roberts & J. Donaldson eds. 1962)
The Ante-Nicene Fathers (A. Roberts & J. Donaldson eds. 1956)
<i>Encyclopedia Americana</i> (rev. ed. 1929)5, 6

E

Periodicals

Ad Hoc Committee on Medical Ethics, American College of Physicians, American College of Physicians Ethics Manual Part II: Research, Other Ethical Issues, 101 Annals Internal Med. 263 (1984)
Anderson, et al., Medical Uncertainty and the Autopsy: Occult Benefits for Students, 21 Human Pathology 128 (1990)
 Berg, Georgia Supreme Court Orders Caesarean Section—Mother Nature Reverses on Appeal, 70 J. Med. A. Ga. 451 (1981)
Chown, <i>Transfusions Are Dangerous</i> , 77 Can. Med. A.J. 1037 (1957)
Clarke, The Choice to Refuse or Withhold Medical Treatment: The Emerging Technology and Medical-Ethical Consensus, 13 Creighton L. Rev. 795 (1980)
Crosby, Trends in Blood Transfusion, 115 Annals N.Y. Acad. Sci. 399 (1964)
Dietrich, et al., Cardiovascular and Metabolic Response to Red Blood Cell Transfusion in Critically Ill Volume-Resuscitated Nonsurgical Patients, 18 Critical Care Med. 940 (1990)
Dixon & Smalley, Jehovah's Witnesses: The Surgical/Ethical Challenge, 246 J. A.M.A. 2471 (1981)
Gallagher, Prenatal Invasions & Interventions: What's Wrong with Fetal Rights, 10 Harv. Women's L.J. 9 (1987)
Gerrity, et al., Physicians' Reactions to Uncertainty in Patient Care, 28 Med. Care 724 (1990)
Goodnough, et al., The Variability of Transfusion Practice in Coronary Artery Bypass Surgery, 265 J. A.M.A. 86 (1991)
Gottlieb, History of the First Blood Transfusion but a Fable Agreed Upon: The Transfusion of Blood to a Pope, 5 Transfusion Med. Rev. 228 (1991)

Greenburg, To Transfuse or Not to Transfuse—That Is the Question!, 18 Critical Care Med. 1045 (1990)
Katz, Limping Is No Sin: Reflections on Making Health Care Decisions, 6 Cardozo L. Rev. 243 (1984)
National Council on Crime and Delinquency, <i>Guides to the Judge in Medical Orders Affecting Children</i> , Crime & Delinq., Apr. 1968
National Institutes of Health, Consensus Conference: Fresh-Frozen Plasma, 253 J. A.M.A. 551 (1985)
National Institutes of Health, Consensus Conference:Perioperative Red Blood Cell Transfusion,260 J. A.M.A. 2700 (1988)230
National Institutes of Health, Consensus Conference: Platelet Transfusion Therapy, 257 J. A.M.A. 1777 (1987)
Nelson & Milliken, Compelled Medical Treatment of Pregnant Women, 259 J. A.M.A. 1060 (1988)
Note, Compulsory Medical Treatment: The State's Interest Re-evaluated, 51 Minn. L. Rev. 293 (1966)
Salem-Schatz, et al., Influence of Clinical Knowledge, Organizational Context, and Practice Style on Transfusion Decision Making, 264 J. A.M.A. 476 (1990)
Shafer, Adverse Effects of Transfusions,69 So. Med. J. 476 (1976)
Shultz, From Informed Consent to Patient Choice: A New Protected Interest, 95 Yale L.J. 219 (1985)
Stehling, et al., A Survey of Transfusion Practices Among Anesthesiologists, 52 Vox Sanguinis 60 (1987)
Thomas, Meeting the Surgical and Ethical Challenge Presented by Jehovah's Witnesses, 128 Can. Med. A.J. 1153 (1983)

Thomson, et al., Blood Component Treatment: A Retrospective Audit in Five Major London Hospitals, 44 J. Clinical Pathology 734 (1991)
Veatch, Physicians and Cost Containment: The Ethical Conflict, 30 Jurimetrics J. 461 (1990)
Welch, et al., Prudent Strategies for Elective Red Blood Cell Transfusion, 116 Annals Internal Med. 393 (1992)
Awake!, Aug. 8, 1950
Awake!, Nov. 22, 1991
The Watch Tower, Apr. 15, 1909 17
The Watch Tower, Dec. 15, 1927
The Watch Tower, Nov. 1, 1930
<i>The Watchtower</i> , Dec. 1, 1938
The Watchtower, Dec. 1, 1944
<i>The Watchtower</i> , July 1, 1945
<i>The Watchtower</i> , Nov. 1, 1954
The Watchtower, Dec. 1, 1987
The Watchtower, Mar. 1, 1989
Zion's Watch Tower, Nov. 15, 1892

Statement of the Case and of the Facts

Amicus curiae Watchtower Bible and Tract Society of New York, Inc., adopts the statement of the case and of the facts appearing in the Fourth District Court's opinion. See *In re Dubreuil*, 603 So. 2d 538, 539-40 (Fla. 4th DCA 1992).

Summary of Argument

Despite the varied and unusual uses of blood throughout the ages, the Bible plainly shows that from the time of Noah, worshippers of God have been instructed to abstain from blood. This divine prohibition was incorporated into the Mosaic Law given to the ancient nation of Israel and was confirmed again in the first century shortly after the inauguration of the Christian religion. Thus, from the very beginning of the Christian faith on down through the ensuing centuries, conscientious Christians have remained obedient to the Biblical command to abstain from blood.

Jehovah's Witnesses, as worshippers of the Almighty God Jehovah and as imitators of His son, Christ Jesus, have continued this millennia-old Scriptural practice of abstaining from blood notwithstanding the adventures and misadventures of transfusion practice in modern times. The continuing uncertainty and danger of transfusion practice and the efficacy of nonblood management of all nature of surgical and medical problems confirm the Witnesses' confidence in the wisdom of obeying God's Word on blood.

Patricia Dubreuil is one of Jehovah's Witnesses. Like countless Christians and pre-Christian servants of God before her, she sincerely desired to obey God's Word on blood in harmony with her deeply held convictions. As a competent adult, Patricia had the right to accept or refuse medical treatment according the dictates of her conscience. Her personal privacy and religious freedom should not have been compromised simply because she had minor children.

- 2 -

ARGUMENT

Jehovah's Witnesses believe that "[a]ll Scripture is inspired of God and beneficial for teaching, for reproving, for setting things straight." 2 *Timothy* 3:16. They therefore devote themselves to the study of God's Word, the Holy Bible, and they strive to apply its counsel in all aspects of their lives. *See John* 17:3; *James* 1:22. In matters of health and medical care, the Witnesses recognize Jehovah God as the source of life and therefore view their lives as a gift from God. *Psalm* 36:9. Jehovah's Witnesses believe they have an obligation to God to safeguard their health. 2 *Corinthians* 7:1. The Witnesses do not smoke, use illicit drugs, overindulge in alcohol, or practice abortion. And while the Witnesses freely seek medical care,¹ they obey the plain Scriptural directive to "keep abstaining . . . from blood." *Acts* 15:28, 29.

The Witnesses' stand on blood is often misunderstood. Jehovah's Witnesses' refusal of blood is not the exercise of a 'right to die.' Witness patients have no desire to sacrifice or martyr themselves. Moreover, Jehovah's Witnesses' refusal of blood is not simply a matter of who gives the consent. Some courts have assumed that if they ordered or assented to the transfusion instead of the Witness patient, the patient's conscience would not be violated and her physical life could be saved without forcing her to compromise her faith. Such third-party consent is completely at odds with the underlying Scriptural basis for Jehovah's Witnesses' refusal of blood. For Jehovah's Witnesses, a nonconsensual blood transfusion is a gross

¹ The Witnesses do not practice or believe in any kind of faith or spiritual healing. See Luke 5:31; The Watchtower, Dec. 1, 1987, at 4-7; The Watchtower, Nov. 1, 1954, at 644-48.

physical violation. It is the transfusion, the blood itself, that is objectionable irrespective of who gives the consent.

Jehovah's Witnesses are not looking for anyone else whether a doctor, a hospital administrator or a judge, to make these moral decisions for them. They do not want someone else to try to shoulder their responsibility to God, for in reality no other person can do that. It is a personal responsibility of the Christian toward his God and Life-Giver.

Watch Tower Bible & Tract Soc'y Pa., Jehovah's Witnesses and the Question of Blood 20 (1977).

Popular assumptions about the indispensable, life-saving value of transfused blood often make it easy for doctors, lawyers and courts of law to ignore important questions about transfusion practice. Although there was little time to receive evidence on the facts of the instant case, the reality is that transfusion practice, like much of medical practice in general, is unavoidably uncertain and therefore highly subjective. Transfusions also are dangerous. That the medical profession may view transfusion therapy as standard or routine does not make it so as a matter of law for Jehovah's Witnesses. *See Public Health Trust v. Wons*, 541 So. 2d 96, 102 (Fla. 1989) (Ehrlich, C.J. concurring specially); *Fosmire v. Nicoleau*, 551 N.E.2d 77, 85-86 (N.Y. 1990) (Simon, J., concurring).

This brief will present a historical overview of the use of blood and a discussion of the Scriptural basis for the Witnesses' modern-day refusal of blood. The brief will then present information on the uncertainty and danger of transfusion practice and on effective alternatives thereto. Finally the brief will conclude with a discussion of the ethics of patient self-determination.

1. Jehovah's Witnesses and the Use of Blood

a. A historical overview of the use of blood

From ancient times human and animal blood has been used for many ritualistic and supposed medicinal purposes. B. Seeman, *The River of Life* 53-59 (1961). The pharaohs of ancient Egypt are said to have bathed in human blood for recuperation and as treatment for leprosy and elephantiasis. P. Hagen, *Blood: Gift or Merchandise* 11 (1982); B. Seeman, *supra*, at 56. In ancient Assyria, the son of King Esarhaddon reportedly drank blood for "internal application" as prescribed by his physician. S. Parpola, *Letters from Assyrian Scholars to the Kings Esarhaddon and Assurbanipal*, Part I: Texts at 201 (Neukirchen-Vluyn 1970). Later, Romans were "said to have rushed into the gladiatorial arena to drink the blood of the dying to receive their courage." P. Hagen, *supra*, at 11. As for the transfusion of blood, it too reportedly dates from the time of the ancient Egyptians, Syrians, and Greeks. B. Seeman, *supra*, at 58-59; *see also 4 Encyclopedia Americana* 113 (rev. ed. 1929).

The first-century naturalist Pliny reported that blood was used to treat epilepsy. The second-century physician Aretæus reported the same treatment of this disorder: "I have seen persons holding a cup below the wound of a man recently slaughtered, and drinking a draught of the blood." *The Extant Works of Aretæus, the Cappadocian* 471 (F. Adams trans. & ed. London 1856). Aside from the consumption of blood in unbled meats and as a constituent of foods such as blood sausages and puddings, the drinking of blood for its imagined therapeutic benefits continued down through the centuries. For example, "In 1483 . . . Louis XI of France was dying. 'Every day he grew worse, and the medicines profited him nothing, though of a strange character; for he vehemently hoped to recover by the human blood which

he took and swallowed from certain children.'" R. Tannahill, Flesh and Blood—A History of the Cannibal Complex 63-64 (1975).

The first reported blood transfusion is said to have been practiced on Pope Innocent VIII in 1492. Three ten-year-old boys served as the donors. They "died without delay" and "the Pontiff's life was not saved." *Diario Della Cittá di Roma di Stefano Infessura* [*Diary of the City of Rome*] 275, 276 (O. Tommasini ed. 1890); 4 *The Encyclopedia Americana* 113 (rev. ed. 1929). *But see*, Gottlieb, *History of the First Blood Transfusion but a Fable Agreed Upon: The Transfusion of Blood to a Pope*, 5 Transfusion Med. Revs. 228 (1991). After William Harvey's observations on the circulatory system were published in 1628, transfusion research, primarily involving animals, began to grow. "[T]ransfusion was thought of not only as a cure, but also as a rejuvenator. Attempts were then made to cure various diseases, such as fevers, leprosy, insanity, and hydrophobia." 4 *The Encyclopedia Americana* 113 (rev. ed. 1929).

The first 'successful' transfusion of a human subject was performed by the Frenchman Jean Baptiste Denis on a fifteen-year-old boy in June 1667. The boy had been suffering from a fever for several months and had been bled by his physicians twenty times when Denis gave him half a pint of lamb's blood. Since the boy did not die, the transfusion was considered a success, although it is not known "whether the cessation of the blood-letting played a more important role than did the transfusion." P. Hagen, *supra*, at 12. In November 1667 in England, Richard Lower "transfused a healthy but mildly insane man with the blood of a lamb." *Id.* at 11. This man too survived and so his transfusion also was deemed a success.

However, because of the incompatibility of animal and human blood and the consequent deaths of transfused patients, the Faculty of Medicine of Paris, the English parliament, the Italian government, and the Pope soon banned all transfusions. *Id.* at 12; Solomon, *A History of Transfusion Medicine*, in III Amer. Assoc. Blood Banks, Administrative Manual 1 (A. Ross ed. 1990).

This ban on transfusions retarded transfusion experiments for some 150 years until 1818 when an English obstetrician, James Blundell, performed the first transfusion of human blood into another person. *Id.* Through previous research Blundell had concluded "that the blood of any one species (eg, sheep) might not serve for any other species (eg, dogs)" and therefore "that the blood of animals might also be harmful to human beings." P. Hagen, *supra*, at 12. Thus, by the latter quarter of the nineteenth century, "the use of animal blood was abandoned for human transfusion therapy." Solomon, *supra*, at 1. Nevertheless, human-to-human transfusions remained a dangerous procedure with a high rate of mortality. *Id.*; P. Hagen, *supra*, at 12.

Modern transfusion science had its beginning in the early 1900's when Karl Landsteiner, an Austrian physician, identified "isoagglutinins in man and by 1902 had defined the four blood groups of the ABO system." Solomon, *supra*, at 2. With the development of anticoagulant additives around the time of World War I, direct donor-to-recipient transfusions began to be replaced by the donation and storage of blood for later use. *Id.* The discovery of the complexities of the Rhesus (Rh) system between 1939 and 1940 and on into the early 1940's confirmed the importance of identifying blood by Rh status. "It was not, however,

until the concept of blood banks was introduced and the exigencies of World War II stimulated the investigation of methods for blood preservation that blood became readily available and blood transfusion became popular." M. Wintrobe, *Clinical Hematology* 491 (8th ed. 1981) (footnote omitted). Thus, it was toward "the end of World War II [that] the major elements of this nation's [the United States'] transfusion establishment were in place" and the use of transfused blood amongst the civilian population started to become a commonplace, standard medical procedure. Solomon, *supra*, at 3.

b. Blood and the Holy Scriptures

Despite this long history of blood use for ritualistic and perceived nutritional or therapeutic purposes, the Bible shows that there was a time before the ascendancy of ancient Egypt and Assyria when all humans knew and obeyed God's law on blood. After Jehovah God had created Adam and Eve and told them to fill the earth with their offspring and subdue it, he gave them

"all vegetation bearing seed which is on the surface of the whole earth and every tree on which there is the fruit of a tree bearing seed. To you let it serve as food. And to every wild beast of the earth and to every flying creature of the heavens and to everything moving upon the earth in which there is life as a soul I have given all green vegetation for food."

Genesis 1:28-30. That animal flesh (and therefore blood) was not intended as human food was confirmed after the Deluge. By the time of Noah, the violence and badness of mankind had reached the point where God was compelled to destroy the human race save Noah and his family. Genesis 6:5-8, 17; 2 Peter 2:5. After the Flood, when Noah and his wife and their three sons and their wives constituted the entire human family, Jehovah God gave them the following instructions:

"Be fruitful and become many and fill the earth. And a fear of you and a terror of you will continue upon every living creature of the earth and upon every flying creature of the heavens, upon everything that goes moving on the ground, and upon all the fishes of the sea. Into your hand they are now given. Every moving animal that is alive may serve as food for you. As in the case of green vegetation, I do give it all to you. Only the flesh with its soul—its blood—you must not eat."

Genesis 9:1-4. Thus, although mankind could now eat animal flesh as food, they were not to

consume the animal's blood.

Over 850 years later, when the nation of Israel entered into a covenant relationship

with Jehovah, the prohibition on blood given to Noah was restated in the Mosaic Law:

And Jehovah went on to speak to Moses, saying: "Speak to Aaron and his sons and all the sons of Israel, and you must say to them, 'This is the thing that Jehovah has commanded, saying: ... "As for any man of the house of Israel or some alien resident who is residing as an alien in their midst who eats any sort of blood, I shall certainly set my face against the soul that is eating the blood, and I shall indeed cut him off from among his people. For the soul of the flesh is in the blood, and I myself have put it upon the altar for you to make atonement for your souls, because it is the blood that makes atonement by the soul in it. That is why I have said to the sons of Israel: 'No soul of you must eat blood and no alien resident who is residing as an alien in your midst should eat blood.'"'"

Leviticus 17:1, 2, 10-12; see also Deuteronomy 12:23-25; Leviticus 7:26, 27. The seriousness

of this prohibition is explained by one Bible commentary as follows:

This strict injunction not only applied to the Israelites, but even to the strangers residing among them. The penalty assigned to its transgression was the being 'cut off from the people,' by which the punishment of death appears to be intended (comp. Heb. x, 28), although it is difficult to ascertain whether it was inflicted by the sword or by stoning.

I McClintock and Strong's Cyclopædia of Biblical, Theological and Ecclesiastical Literature

834 (reprint 1981).

Although the Law of Moses was fulfilled with the sacrificial death of Jesus Christ, see

Romans 10:4; Colossians 2:13, 14; see also Galatians 3:23-29; Ephesians 2:11-16, God's

original law on blood persisted. In the first century, some sixteen years after Christ's death, resurrection and ascension, the first council of the newly established Christian church convened in Jerusalem to settle the issue whether non-Jews converting to Christianity had to be circumcised according to the Mosaic Law. *Acts* 15:1-2. In considering this issue, "the apostles and older men in Jerusalem," being fully aware of Jehovah's original instructions to Noah, reviewed the provisions of the law Jehovah had given to the nation of Israel through Moses. *Acts* 15:2-21. The decision reached was unanimous. As the Bible records, the council announced the following decision to all first-century Christians: "'[T]he holy spirit and we ourselves have favored adding no further burden to you, except these necessary things, to keep abstaining from things sacrificed to idols and from blood and from things strangled and from fornication. If you carefully keep yourselves from these things, you will prosper.'" *Acts* 15:28, 29; *see also Acts* 21:25.

Thus, from the time of Noah, on through Israel's covenant relationship with Jehovah, and finally again with the newly formed Christian congregation in the first century, Jehovah consistently commanded those serving him to 'abstain from blood.'

c. Commentary on the Christian prohibition of blood

Respect for this plain Scriptural directive amongst early Christians is well documented. In the second century, when persecutors of the early Christians falsely accused them of cannibalistically eating their own children, a young Christian woman named Biblis explained: "How can we eat infants—we, to whom it is not lawful to eat the blood of beasts." W. Jones, *The History of the Christian Church* 106 (n.p. 1837); *Eusebius*, in I The Ecclesiastical History 26 (Loeb Classical Library 1980). Commenting on similar accusations, the early Latin theologian Tertullian contrasted the Romans' practice of drinking blood and eating it in their foods with the Christians' abhorrence for blood:

Let your unnatural ways blush before the Christians. We do not even have the blood of animals at our meals, for these consist of ordinary food. . . . At the trials of Christians you offer them sausages filled with blood. You are convinced, of course, that the very thing with which you try to make them deviate from the right way is unlawful for them. How is it that, when you are confident that they will shudder at the blood of an animal, you believe they will pant eagerly after human blood?

Tertullian, *Apologetical Works* 33 (R. Arbesmann trans. 1950); Tertullian, *Apology* 53 (Loeb Classical Library, T. Glover trans. 1931). A third-century Roman lawyer, Minucius Felix, wrote: "For us it is not permissible either to see or hear of human slaughter; we have such a shrinking from human blood that at our meals we avoid the blood of animals used for food." M. Felix, *Octavius* 409 (Loeb Classical Library 1977); *see also* IV *The Ante-Nicene Fathers* 192 (A. Roberts & J. Donaldson eds. 1956). As Bishop John Kaye commented on the historical evidence of the practices of the early Christians: "The Primitive Christians scrupulously complied with the decree pronounced by the Apostles at Jerusalem, in abstaining from things strangled and from blood." J. Kaye, *The Ecclesiastical History of the Second and Third Centuries* 146 (3d ed. London 1845).²

² For other second- and third-century references supporting this application of Acts 15:28, 29, see The Stromata, or Miscellanies, in II The Ante-Nicene Fathers 427 (A. Roberts & J. Donaldson eds. 1962); Origen Against Celsus, in IV The Ante-Nicene Fathers 650 (A. Roberts & J. Donaldson eds. 1956); The Clementine Homilies, in VIII The Ante-Nicene Fathers 268 (A. Roberts & J. Donaldson eds. n.d.); Origen's Commentary on Matthew, in X The Ante-Nicene Fathers 441 (A. Menzies ed. n.d.); Recognitions of Clement, in VIII The Ante-Nicene Fathers 142-43 (A. Roberts & J. Donaldson eds. n.d.).

With the merging of the Roman state and the Christianity practiced during the reign of Constantine in the fourth century, the first signs of deviation from the unqualified Biblical prohibition of blood began to appear. According to one authority:

[I]n the New Testament, instead of there being the least hint intimating that we are freed from the obligation, it is deserving of particular notice that at the very time that the Holy Spirit declares by the apostles (*Acts* xv) that the Gentiles are free from the yoke of circumcision, abstinence from blood is explicitly enjoined, and the action thus prohibited is classed with idolatry and fornication. After the time of Augustine, the rule began to be held merely as a temporary injunction. It was one of the grounds alleged by the early apologists against the calumnies of the enemies of Christianity that, so far were they from drinking human blood, it was unlawful for them to drink the blood even of irrational animals. Numerous testimonies to the same effect are found in after ages. (Bingham, *Origines Ecclesiasticae*, book xvii, chapter v, section xx).

I McClintock and Strong's Cyclopædia of Biblical, Theological and Ecclesiastical Literature

834 (reprint 1981).

Despite this non-Scriptural adulteration of the Bible's plain command, "in succeeding centuries down to the Middle Ages, we encounter unexpected echoes of this early 'abomination' [of blood], due unquestionably to the decree [in *Acts* 15:29]." G. Ricciotti, *The Acts of the Apostles* 243 (1958). "[T]he precepts hereby set down in a precise and methodical manner [in *Acts* 15] are qualified as indispensable, giving the strongest proof that in the apostles' minds this was not a temporary arrangement, or a provisional measure." E. Reuss, *La Bible: La Théologie Johannique* 163 (1879).

One such historical 'echo' of the decree in *Acts* 15:29 was the Trullan council held at Constantinople in 692. This council ruled that "[t]he eating of the blood of animals is forbidden in Holy Scripture. A cleric who partakes of blood is to be punished by deposition, a layman with excommunication." C. Hefele, A History of the Councils of the Church, from

the Original Documents 232 (1896). About 200 years later, Regino, the abbot of Prüm

(Germany), showed that the Biblical prohibition of blood was observed in his day:

The apostles' letter sent from Jerusalem advises that these things must necessarily be observed. (Acts 15) Also, [Christians must abstain from eating] something caught by a beast, for that too is likewise strangled; and from blood, that is, it must not be eaten with blood...

At the same time, this must also be considered: that a thing strangled, and blood, are viewed in the same way as idolatry and fornication. Wherefore, it should be proclaimed to all what a grievous sin it is to eat blood, since it is placed together with idols and fornication. If anyone shall violate these commands of the Lord and the apostles, let him be suspended from the communion of the church until he should appropriately repent.

Regino, Libri Duo de Ecclesiastics Disciplinis et Religione Christiana [Two Books Concerning

the Ecclesiastical Teachings and the Christian Religion], in 132 Patrologiæ Latina cols. 354,

355 (J. Migne ed. Paris 1853).

In the twelfth century, Otho, the bishop of Bamberg, explained to converts in Pomerania "that they should not eat any thing unclean, or which died of itself, or was strangled, or sacrificed to idols, or the blood of animals." I *Tertullian* 109 (C. Dodgson trans. n.p. 1842). Martin Luther also recognized the implications of the first-century directive on blood:

Now if we want to have a church that conforms to this council (as is right, since it is the first and foremost council, and was held by the apostles themselves), we must teach and insist that henceforth no prince, lord, burgher, or peasant eat geese, doe, stag, or pork cooked in blood And burghers and peasants must abstain especially from red sausage and blood sausage . . .

41 Luther's Works (Church and Ministry III) 28 (E. Gritsch ed. n.d.). John Calvin too observed that the original prohibition given to Noah "had been given to the whole world

immediately after the Flood." 2 J. Calvin, *Commentary on the Acts of the Apostles* 50 (J. Fraser trans. 1966). And seventeenth-century theologian Étienne de Courcelles was equally convinced that Christians should abstain from blood. Speaking of *Acts* 15:28, 29, he said:

The apostles, by their decree, wished to remedy the ignorance of these persons [*i.e.*, the Gentile converts]; whereby relieving them of the yoke of circumcision and other legal precepts, they nonetheless advised that those things must be retained that were already observed from antiquity by the foreigners remaining among the Israelites, [things] such as were transmitted to Noah and his sons.

de Courcelles, Diatriba de Esu Sanguinis Inter Christianos [Discourse Concerning the

Eating of Blood Among Christians], in Opera Theologica 971 (Amsterdam 1675).

As mentioned, by the latter half of the seventeenth century, experiments in transfusion practice were under way. Bartolomeo Santinelli, an Italian physician, wrote this about these new medical experiments in view of the injunction in the book of *Acts*:

Although indeed the prohibition of the use of blood would have in view only that man should not eat it, for which reason it would seem to pertain less to our cause, nonetheless the purpose of that injunction is contrary to today's transfusion [practice], so that the one who employs it would appear to oppose God who extends clemency.

B. Santinelli, Confusio Transfusionis, sive Confutatio Operationis Transfundentis Sanguinem de Individuo ad Individuum [A Confounding of Transfusion, or A Refutation of the Operation of Transfusing Blood from Individual to Individual] 130, 131 (Rome 1668). Likewise, Thomas Bartholin, a seventeenth-century professor of anatomy at the University of Copenhagen, wrote: Those who drag in the use of human blood for internal remedies of diseases appear to misuse it and to sin gravely. . . Cannibals are condemned. Why do we not abhor those who stain [their] gullet with human blood? . . .

Similar is the receiving of alien blood from a cut vein, either through the mouth, a thing that is recommended for senile hectic fever, or by instruments of transfusion, a thing that, contrived through the divisings of the moderns, already has come almost into disuse, when it scarcely has become known in the world. The authors of this operation are held in terror by the divine law, by which eating of blood is prohibited.

T. Bartholin, De Sanguinis Abusu Disputatio [A Disputation Concerning the Misuse of Blood]

140-41, 142-43 (Frankfurt 1676).

In the next century, Sir Isaac Newton expressed his understanding of the use of trans-

fused blood in view of the Scriptures:

This law [of abstaining from blood] was ancienter than the days of Moses, being given to Noah and his sons, long before the days of Abraham: and therefore when the Apostles and Elders in the Council at Jerusalem declared that the Gentiles were not obliged to be circumcised and keep the law of Moses, they excepted this law of abstaining from blood, and things strangled, as being an earlier law of God, imposed not on the sons of Abraham only, but on all nations.

I. Newton, The Chronology of Antient Kingdoms Amended 184 (Dublin 1728). As another

eighteenth-century scientist concluded:

The prohibition to eat blood, given to Noah, seems to be obligatory on all his posterity . . . If we interpret this prohibition of the apostles by the practice of the primitive Christians, who can hardly be supposed not to have rightly understood the nature and extent of it, we cannot but conclude, that it was intended to be absolute and perpetual.

2 The Theological and Miscellaneous Works, &c. of Joseph Priestley 376, 379 (reprint 1972);

see also 1 J. Benson, The Holy Bible, Containing the Old and New Testaments 43 (New York

1839) ("This prohibition of eating blood, given to Noah and all his posterity, and repeated to

the Israelites . . . has never been revoked, but, on the contrary, has been confirmed under the

New Testament, Acts xv.; and thereby made of perpetual obligation.").

As for any so-called 'Christian liberty' permitting exception to the Biblical directive, clergyman William Jones responded:

Nothing can be more express than the *prohibition*, Acts XV.28, 29. Can those who plead their "Christian liberty" in regard to this matter point us to any part of the Word of God in which this prohibition is subsequently annulled? If not, may we be allowed to ask, "By what authority, except his own, can any of the laws of God be repealed?"

W. Jones, *The History of the Christian Church* 106 (n.p. 1837). Another nineteenth-century commentator, Baptist theologian Andrew Fuller, made the following comment on the original blood prohibition given to Noah at *Genesis* 9:3, 4:

This, being forbidden to Noah, appears also to have been forbidden to all mankind; nor ought this prohibition to be treated as belonging to the ceremonies of the Jewish dispensation. It was not only enjoined before that dispensation existed, but was enforced upon the Gentile Christians by the decrees of the apostles, Acts XV.20. . . . Blood is *the life* and God seems to claim it as sacred to himself.

The Complete Works of the Rev. Andrew Fuller 751 (n.p. 1842). Thus, "[t]he implication seems very clear that we are still to respect the sanctity of the blood, since God has appointed it to be a symbol of the atoning blood of Jesus Christ. Therefore it is not to be consumed by any believer who wishes to be obedient to Scripture." G. Archer, Encyclopedia of Bible Difficulties 86 (1982).

d. Jehovah's Witnesses and blood

As students of the Bible, Jehovah's Witnesses have always been obedient to the divine prohibition of blood. Before the advent of popular transfusion practice toward the end of the Second World War, the Witnesses, like many conscientious Christians throughout the centuries, were cognizant of and obedient to the command in the Bible book of *Acts*. In a discussion of chapter 15 of *Acts*, the November 15, 1892, issue of *Zion's Watch Tower* recognized the abiding validity of the original instructions given to Noah: "The eating of blood was forbidden, not only by the Jewish Law, but also before the Law was given. The same command was given to Noah. See Deut. 12:23; Gen. 9:4." *Id.* at 350. Repeated discussions of this subject were considered by Jehovah's Witnesses over the next fifty years. *See The Watch Tower*, Apr. 15, 1909, at 117 (discussing *Acts* ch. 15); *The Watch Tower*, Dec. 15, 1927, at 371-72 (discussing *Genesis* ch. 9); *The Watch Tower*, Nov. 1, 1930, at 334 (same); *The Watchtower*, Dec. 1, 1938, at 356-57 (same); *The Watchtower*, Dec. 1, 1944, at 362 (discussing *Genesis* ch. 9 and *Leviticus* ch. 17).

With the conclusion of World War II and the growing use of transfused blood in civilian medical practice, the July 1, 1945, issue of *The Watchtower* again reviewed Jehovah's view of the proper use of blood from the time of Noah, through the time of the Law Covenant, down to the beginning of the Christian era. This issue of *The Watchtower* concluded:

Seeing, then, that the Most High and Holy God gave plain instructions as to the disposition of blood, in harmony with his everlasting covenant made with Noah and all his descendants; and seeing that the only use of blood that he authorized in order to furnish life to humankind was the use of it as a propitiation or atonement for sin; and seeing that it was to be done upon his holy altar or at his mercy seat, and not by taking such blood directly into the human body; therefore it behooves all worshipers of Jehovah who seek eternal life in his new world of righteousness to respect the sanctity of blood and to conform themselves to God's righteous rulings concerning this vital matter.

The Watchtower, July 1, 1945, at 201. Since that time, the Witnesses' stand on blood has remained steadfast, notwithstanding the vicissitudes of transfusion practice. See, e.g., Awake!, Aug. 8, 1950, at 3-12; Watch Tower Bible & Tract Soc'y Pa., Blood, Medicine, and

- 17 -

the Law of God (1961); Watch Tower Bible & Tract Soc'y Pa., Jehovah's Witnesses and the Question of Blood (1977); Watch Tower Bible & Tract Soc'y Pa., How Can Blood Save Your Life? (1990).

Today, just as after the Flood and just as after the first apostolic council in the first century, Jehovah's Witnesses are firmly resolved to obey God's Word on blood. As sincere Christians, the Witnesses will continue to apply God's Word in their lives and will follow the example of the first-century Christians and other conscientious Christians throughout the centuries who have been obedient to God in abstaining from blood.

2. Blood Transfusion Therapy

Although the Witnesses view their relationship with their God and obedience to his Word to be of the highest importance, they also are aware of the many hazards and complications of transfusion therapy. See, e.g., Watch Tower Bible & Tract Soc'y Pa., *How Can Blood Save Your Life?* at 7-12; Watch Tower Bible & Tract Soc'y Pa., *Jehovah's Witnesses and the Question of Blood* at 38-49. Notwithstanding the popular medical opinion of our day, Jehovah's Witnesses believe that Jehovah God, as man's Creator and as the Creator of blood, knows infinitely more about the use of blood than any human or group of humans will ever know. Indeed, the Witnesses' confidence in the wisdom of Jehovah's prohibition of blood continues to be confirmed by medical science. The growing professional acknowledgment and public awareness of the hazards and complications of transfusion therapy strengthens their conviction about the benefits to be gained from heeding God's Word. Isaiah 48:17.

Before a patient's choice of medical treatment is adjudged imprudent, knowledge of the details about the patient's condition and about the hazards, benefits, and alternatives to the medical treatment in question is essential. When disregard of an individual's bodily integrity is at stake, the danger of presuming medical facts can hardly be overemphasized. As one writer has observed: "The necessity of the recommended treatment is not an assumption in refusal cases. Rather, the necessity of the recommended treatment is a key issue to be resolved in each refusal case." Clarke, The Choice to Refuse or Withhold Medical Treatment: The Emerging Technology and Medical-Ethical Consensus, 13 Creighton L. Rev. 795, 795 n.1 (1980). "The issue of compulsory treatment should only be reached after the medical diagnosis is found to be sound. In determining whether the judgment is sound, the opinion of the doctors seeking authorization should be carefully scrutinized in view of their involvement." Note, Compulsory Medical Treatment: The State's Interest Re-evaluated, 51 Minn. L. Rev. 293, 304 (1966) (footnote omitted). "Judicial scrutiny . . . must include painstaking inquiry into the alleged necessity and efficacy of the proposed intervention and into the availability of ... alternatives." Gallagher, Prenatal Invasions & Interventions: What's Wrong with Fetal Rights, 10 Harv. Women's L.J. 9, 55 (1987).

a. Uncertainty of medical practice

While the medical intervention at issue in this case involved blood transfusion, an appreciation of the pervasive uncertainty of medical practice in general helps put the realities of transfusion therapy into context. Despite the remarkable advances of medical science, the practice of medicine remains an art fraught with uncertainty and subjectivity. As the President's Commission for the study of ethical problems in medicine observed:

Few would claim that medicine is an exact science, yet many commentators have remarked on the disinclination of medical professionals to discuss with their patients the uncertainties inherent in diagnosis, prognosis, and potential treatments. Explanations of this attitude range from an insistence on maintaining professional control and dominance to the potential therapeutic efficacy of unquestioning confidence in a treatment by patient and professional alike.

President's Commission for the Study of Ethical Problems in Medicine and Biomedical and

Behavioral Research, Making Health Care Decisions: The Ethical and Legal Implications of

Informed Consent in the Patient-Practitioner Relationship 85 (1982) (footnote omitted) [herein-

after President's Commission, Making Health Care Decisions].

It is hardly a unique observation that medicine is an enterprise filled with uncertainty. All the existing medical knowledge cannot predict with complete certainty the outcome of even the most predictable diseases and treatments. Not only is the outcome of medical interventions uncertain, but many of the points along the way-diagnosis, etiology, treatment itself—are shrouded in uncertainty.

Lidz & Meisel, Informed Consent and the Structure of Medical Care, in 2 President's Commission, Making Health Care Decisions 317, 374. "Uncertainty remains a major presence in medicine. Clinical diagnostic methods are far from perfect, the course of a disease often defies prediction, and the effectiveness of a given treatment varies unexpectedly from patient to patient. Error is an immutable component of the practice of medicine." Anderson, et al., Medical Uncertainty and the Autopsy: Occult Benefits for Students, 21 Human Pathology 128, 134 (1990).

Opinions on how to treat given health problems vary widely. Medical opinion about what is "necessary" or indispensable treatment in any situation varies from doctor to doctor depending on, among other things, "a physician's age, present health, history of personal illness, cultural background, and long-standing knowledge of the patient as a person." Ad Hoc Committee on Medical Ethics, American College of Physicians, American College of Physicians Ethics Manual Part II: Research, Other Ethical Issues, 101 Annals Internal Med. 263, 265 (1984); see Gerrity, et al., Physicians' Reactions to Uncertainty in Patient Care, 28 Med. Care 724, 726 (1990). See generally L. Payer, Medicine & Culture (1988). The fact of the matter is that "[h]ealth care professionals often reflect their own value preferences when they favor one alternative over another." President's Commission, Making Health Care Decisions at 42. As the President's Commission explained:

[Health care p]roviders and others have an obligation to see that patients can choose among a range of available and potentially beneficial treatments. Sometimes the range is limited wrongly because a practitioner is unwilling to make available an option or is ignorant of a possible treatment that is especially pertinent to a particular decision about life-sustaining therapy.

President's Commission for the Study of Ethical Problems in Medicine and Biomedical and

Behavioral Research, Deciding to Forego Life-Sustaining Treatment: Ethical, Medical and

Legal Issues in Treatment Decisions 50 (1983).

Even in alleged "emergencies" there is need for careful examination of the facts. What constitutes a medical emergency is—like just about everything else in medicine—a matter of opinion. A Council of Judges for the National Council on Crime and Delinquency explained:

[A]lthough an emergency may exist from the physician's point of view, the person may not in fact be *in extremis*. This does not imply that doctors do not testify in good faith as to a person's likelihood of surviving a crisis without undergoing a particular procedure. It means, rather, that medical knowledge is not sufficiently advanced to enable a physician to predict with reasonable certainty that his patient will live or die or will suffer a permanent physical impairment or deformity. Doctors tend to urge the imposition of a treatment when, in their expert opinion, death or permanent physical impairment is more likely to occur if the treatment is not given than if it is. However, it is the duty of the court to determine the seriousness of the emergency in a particular case, to press the testifying physician on the imminent likelihood of death or impairment, the chance of survival or of alleviation of prolonged agonizing pain if the proposed treatment is given, and the danger of the treatment itself.

National Council on Crime and Delinquency, *Guides to the Judge in Medical Orders Affecting Children*, Crime & Delinq., Apr. 1968 at 109, 116; *see also* Health Law Center, *The Hospital Law Manual* ¶ 1-9, at 17 (Supp. 1990) ("[d]etermining whether the degree of urgency is sufficient to constitute an emergency . . . is a factual question").

The pervasive uncertainty and wide divergence of medical opinion often goes unacknowledged by doctors who consequently impose their own or the medical profession's values on unwitting patients and families. Indeed, the reality of medical uncertainty is generally unknown to the lay public (including courts of law) because of the medical profession's reluctance to forthrightly acknowledge it.

The disregard of uncertainty defeats sharing the burdens of decision with patients. Such disregard has significantly contributed to duplicities, evasions, and lies that readily permeate conversations with patients. Such disregard makes meaningful disclosure and consent a charade.

Unless physicians learn to deal better with uncertainty, unless future physicians become better trained for uncertainty, shared decisionmaking will not become a meaningful reality. Training for uncertainty is one of the most pressing assignments confronting medical educators, an assignment for which no committed and respected place has been found in the curriculum.

Katz, Limping Is No Sin: Reflections on Making Health Care Decisions, 6 Cardozo L. Rev. 243, 255-56 (1984) (footnotes omitted).

b. Uncertainty of transfusion practice

The uncertainty and sharp differences of opinion that pervade the practice of medicine in general apply with full force to transfusion practice. Blood transfusion is simply one example of a therapy which, although marked with great uncertainty and danger, has enjoyed widespread use. *Cf.* Shultz, *From Informed Consent to Patient Choice: A New Protected Interest*, 95 Yale L.J. 219, 270-72 & n.230 (1985). "Evidence shows that blood products, like other health care resources, are often used inappropriately, but the reasons for this have not been well studied." Salem-Schatz, et al., *Influence of Clinical Knowledge, Organizational Context, and Practice Style on Transfusion Decision Making*, 264 J. A.M.A. 476, 476 (1990) (abstract). The United States Congress' Office of Technology Assessment (OTA) Task Force has observed that "data by which to evaluate the overall appropriate use of blood products do not exist, in many cases because of lack of scientific precision concerning when a component or derivative should be administered." U.S. Congress, Office of Technology Assessment Task Force, *Blood Technologies, Services, and Issues* 121 (1988) [hereafter OTA Task Force, *Blood Technologies*].

The National Institutes of Health (NIH) has observed that "the literature is remarkable for the absence of carefully controlled, randomized trials that would permit definitive conclusions regarding perioperative transfusion practice." National Institutes of Health, *Consensus Conference: Perioperative Red Blood Cell Transfusion*, 260 J. A.M.A. 2700, 2701 (1988). The long-observed practice of transfusing patients up to 'normal' blood counts before administering anesthesia preliminary to surgery has been described as "a myth" whose origin is "cloaked in tradition, shrouded in obscurity, and unsubstantiated by clinical or experimental evidence." Zauder, *How Did We Get a "Magic Number" for Preoperative Hematocrit/ Hemoglobin Level?*, in Perioperative Red Cell Transfusion: Program and Abstracts (June 27-29, 1988). This uncertainty is not limited to the use of red cells. Platelet and fresh-frozen plasma transfusion practices also have been criticized. With respect to platelets, the NIH observed: "Clinical decisions regarding platelet transfusion are hampered by an insufficient number of properly controlled trials, by imprecise methods of evaluating clinical need, and by uncertain methods for measuring effects." National Institutes of Health, *Consensus Conference: Platelet Transfusion Therapy*, 257 J. A.M.A. 1777, 1777 (1987). As for fresh-frozen plasma (FFP), the NIH noted: "The administration of FFP has increased dramatically in recent years despite the paucity of definitive indications for its use." National Institutes of Health, *Consensus Conference: Fresh-Frozen Plasma*, 253 J. A.M.A. 551, 551 (1985).

One explanation for the long-standing, pervasive uncertainty of transfusion practice was offered by the OTA:

Medical schools devote little attention to transfusion practice. The result is that medical students and residents learn most of what they know about blood transfusion by the practice of "chaining": "The chief resident passes along what he has learned, gathered in an entirely unsystematic way, to the assistant residents, who then in turn teach the interns and medical students as they rotate through the various clinical services."

OTA Task Force, *Blood Technologies* at 128 (quoting Swisher & Petz, *An Overview of Blood Transfusion*, in Clinical Practice of Blood Transfusion (L. Petz & S. Swisher eds. 1981)). These observations are consistent with a survey which found that "[d]eficiencies in knowledge of transfusion indications were widespread" and that "physicians with the least knowledge demonstrated the greatest confidence" in their transfusion orders. Salem-Schatz, et al., *Influence of Clinical Knowledge, Organizational Context, and Practice Style on Transfusion Decision Making*, 264 J. A.M.A. 476, 479, 482 (1990). More disturbing still, those physi-

cians with the least knowledge (but the greatest confidence) were those with greater years of practice. *Id.* at 482. Thus, it is perhaps not surprising that "[0]f the residents surveyed, 61% indicated that they ordered transfusions that they judged unnecessary at least once a month because a more senior physician suggested that they do so." *Id.* at 476 (abstract). "One third of these (21% of the sample) reported this occurring twice a month or more." *Id.* at 481.

In view of the widespread uncertainty of transfusion practice and the subjectivity this necessitates, it should come as no surprise that a survey of anesthesiologists "confirm[ed] the existence of wide variations in transfusion practices It would appear that many transfusion practices are based on habit rather than scientific data." Stehling, et al., A Survey of Transfusion Practices Among Anesthesiologists, 52 Vox Sanguinis 60, 61-62 (1987). Indeed, "[b]oth blood suppliers and users agree that blood is overused and used inappropriately." OTA Task Force, Blood Technologies at 121. The OTA Task Force concluded that a key element in the controversy surrounding the appropriate use of all blood products "is that criteria for clinical use are often unclear. Thus, practice at the bedside relies on anecdotal reports and evidence from inadequate trials." Id. at 127. Even with the growing awareness of blood dangers and efforts to use blood more judiciously, a recent study revealed that "current transfusion practice is highly variable" and that such variability "suggests that many physicians' practice styles remain unchanged and that unnecessary transfusion remains a problem." Welch, et al., Prudent Strategies for Elective Red Blood Cell Transfusion, 116 Annals Internal Med. 393, 395 (1992).

Thus, although it may sound extreme to say so, clinical practice and the medical literature show that transfusion therapy is largely a matter of habit resting on anecdotal assumption and guesswork. See, e.g., Goodnough, et al., The Variability of Transfusion Practice in Coronary Artery Bypass Surgery, 265 J. A.M.A. 86 (1991); Thomson, et al., Blood Component Treatment: A Retrospective Audit in Five Major London Hospitals, 44 J. Clinical Pathology 734, 736 (1991) ("overuse of blood components has been attributed to misconceptions of their value, lack of knowledge of the situations in which their use cannot be justified, and underestimation of the incidence and magnitude of possible complications"); Dietrich, et al., Cardiovascular and Metabolic Response to Red Blood Cell Transfusion in Critically Ill Volume-Resuscitated Nonsurgical Patients, 18 Critical Care Med. 940 (1990); Greenburg, To Transfuse or Not to Transfuse—That Is the Question!, 18 Critical Care Med. 1045 (1990).

Numerous reported cases involving patients who were Jehovah's Witnesses confirm the uncertainty of medical opinion in matters of transfusion practice. In each case, the patient was successfully managed without blood despite attending physicians' dire predictions that blood was or would be necessary to save the patient's life or avoid serious injury.³

³ See, e.g., In re W.M., 823 S.W.2d 128 (Mo. Ct. App. 1992) (despite attending physician's opinion that "the only recognized course of medical treatment" for leukemia included platelet and red cell transfusions, minor patient was transferred to another physician who successfully treated him without blood); McKenzie v. Doctors' Hosp. of Hollywood, Inc., 765 F. Supp. 1504, 1505 (S.D. Fla. 1991) (patient leaves hospital and receives bloodless care elsewhere after hospital obtained emergency ex parte order to administer 'life-saving' blood transfusion); Norwood Hosp. v. Munoz, 564 N.E.2d 1017, 1019-20 (Mass. 1991) (patient released from hospital without receiving blood despite physician's belief that blood was "reasonably necessary to save her life"); Cooper v. Wiley, 513 N.Y.S.2d 151, 152 (App. Div. 1987) (physician's opinion about "urgent" need for blood transfusions to correct child's low platelet and red cell counts proved erroneous "when the child responded to medical treatment that did not entail a blood transfusion"); In re Brown, 478 So. 2d 1033, 1036 n.1 (Miss. 1985) (surgery successfully performed without blood despite physician's attempt to obtain court order for same); Mercy Hosp., Inc. v. Jackson, 489 A.2d 1130, 1131 (Md. Ct. Spec. App. 1985) (physicians'

c. Hazards and complications of transfusion therapy

For many years practitioners have openly acknowledged that blood transfusions are

overused, overrated and potentially lethal.

Transfusion therapy, even under ideal conditions, carries a significant risk of an adverse reaction. Such reactions are associated with significant morbidity and in some cases with a fatal outcome. . . Up to 20 percent of all transfusions may lead to some type of adverse reaction.

Masouredis, Preservation and Clinical Use of Erythrocytes and Whole Blood in W. Williams,

E. Beutler, A. Erslev & M. Lichtman, Hematology 1628, 1636 (4th ed. 1990).

Transfusions are dangerous. Hemolytic, leukoagglutinin and allergic reactions may occur. The recipient may become sensitized to a minor RBC antigen leading to future difficulty in finding compatible blood. Volume overload may occur (especially in the elderly patient with heart disease and chronic anemia). The major danger is transfusion induced infection. Although there are rare cases today of contaminated blood, transfusion malaria, babesiosis, and infection with HIV (from an infected donor screened before antibody develops), the major danger from transfusion is Non A Non B Hepatitis. It is estimated that 5 to 15% of volunteer blood donors carry the virus. The use of pre donation ALT and Hepatitis B core antibody testing will allow the detection of 30 to 40% on Non A Non B carriers. Still there remains a significant risk of infection especially in the multiply transfused patient or the recipient of multiple units of such products as platelets and cryoprecipitate. The vast majority of post transfusion hepatitis is subclinical although it takes years to develop. A significant percentage of infected recipients go on to chronic liver disease. Prevention of exposure is the only known treatment.

L. Waterbury, Hematology for the House Officer 129 (3d ed. 1988).

All too often blood is administered with little thought given to the indications for its use, the proper dose required, and potential adverse consequences. . . .

opinions about "high risk of mortality" and "fatal risk" of performance of Cesarean section without availability of blood proved erroneous when surgery was successfully performed without blood); In re Osborne, 294 A.2d 372, 376 n.6 (D.C. 1972) (physicians' opinion that transfusions of whole blood would be needed to treat patient's trauma injuries and internal bleeding proved erroneous as patient recovered without blood); *compare* Jefferson v. Griffin Spalding County Hosp. Auth., 274 S.E.2d 457 (Ga. 1981) (per curiam) with Berg, Georgia Supreme Court Orders Caesarean Section—Mother Nature Reverses on Appeal, 70 J. Med. A. Ga. 451 (1981) (physician's opinion that woman with placenta previa would need blood transfusion for Cesarean section proved erroneous when placenta shifted and baby was delivered vaginally without use of blood).

There is surprisingly little information concerning the level of hematocrit that will accomplish [sufficient tissue oxygenation].

Fosburg & Kevy, Red Cell Transfusion in 2 Hematology of Infancy and Childhood 1580,

1581 (D. Nathan & F. Oski 3d eds. 1987).

Some physicians follow the deplorable practice of transfusing patients whenever the hemoglobin value is below an arbitrarily set figure. Similarly, the insistence of some surgeons that the hemoglobin concentration be "normal" prior to a surgical operation is a form of superstition. . . Blood transfusion is not a tonic nor is it a placebo.

M. Wintrobe, Clinical Hematology 497 (8th ed. 1981).

It has been estimated that 35 to 50 percent of all blood transfusions are unnecessary, and only about 1 percent are given as lifesaving procedures.

Davis-Christopher, Textbook of Surgery 132 (D. Sabiston 10th ed. 1977).

"Thoughtless prescription of blood transfusion is playing Russian roulette with bottles of blood instead of a revolver." It has been estimated (probably conservatively) that between 3,000 and 30,000 deaths attributable to transfusions occur annually in the United States.

Shafer, Adverse Effects of Transfusions, 69 So. Med. J. 476, 476 (1976) (quoting W. Crosby,

Misuse of Blood Transfusion, 13 Blood 1198 (1958)).

It will take some time and effort to rid our medical culture of the unfounded hope that transfusion is a tonic, or that it may reduce toxicity or hasten convalescence or improve wound-healing.

Crosby, Trends in Blood Transfusion, 115 Annals N.Y. Acad. Sci. 399, 399-400 (1964).

[O]ne cannot dispute the fact that there is tremendous loss of life and induced illness from this procedure, which is intended to be therapeutic. In terms of disability and loss of life the sequelae of blood transfusions rival some of our major public health problems.

Wilson, Complications of Blood Transfusion, in Complications in Surgery and Their Manage-

ment 69, 80 (C. Artz & J. Hardy eds. 1960).

Blood has always had a mystical quality; its use in the operating room is more often mystical than scientific. . . I would hazard the guess that not 5%—no, not 1%—of transfusions so given have been life-saving. And I would hazard the guess too that at least as great a percentage has been death-dealing.

Chown, Transfusions Are Dangerous, 77 Can. Med. A.J. 1037 (1957).

Reports about the often unavoidable, potentially fatal hazards and complications of blood are legion. The following are just a sample:

GENERAL

- Akahoshi, et al., A Case of Transfusion-Associated Graft-Versus-Host Disease Not Prevented by White Cell-Reduction Filters, 32 Transfusion 169 (1992).
- Popovsky, et al., Transfusion-related Acute Lung Injury: A Neglected, Serious Complication of Hemotherapy, 32 Transfusion 589 (1992).
- Skolnick, Transfusion Medicine Faces Time of Major 'Challenges and Changes,' 268 J. A.M.A. 697 (1992).
- Blumberg, Transfusion Risks Associated with Surgery, in Immunosuppressive Effect of Blood Transfusion 7 (H. Klein & P. Tarrtter eds. 1991).
- Mintz, et al., Transfusion-Transmitted Babesiosis: A Case Report from a New Endemic Area, 31 Transfusion 365 (1991).
- American Association of Blood Banks, Adverse Effects of Blood Transfusion, in Technical Manual 411 (R. Walker 10th ed. 1990).
- Galandiuk, et al., An Experimental Assessment of the Effect of Blood Transfusion on Susceptibility to Bacterial Infection, 108 Surgery 567 (1990).
- Goodnough & Shuck, Risks, Options, and Informed Consent for Blood Transfusion in Elective Surgery, 159 Am. J. Surgery 602 (1990).
- Sazama, Reports of 355 Transfusion-Associated Deaths: 1976 Through 1985, 30 Transfusion 583 (1990).
- Transfusions and Graft-versus-Host Disease, The Lancet, Mar. 11, 1989, at 529.

- Walker, Special Report: Transfusion Risks, 88 Am. J. Clinical Pathology 374, 375 (1987).
- Panzer, et al., Haemolytic Transfusion Reactions to HLA Antibodies, The Lancet, Feb. 28, 1987, at 474.
- Braine, et al., Bacterial Sepsis Secondary to Platelet Transfusion: An Adverse Effect of Extended Storage at Room Temperature, 26 Transfusion 391 (1986).
- Wells & King, Adverse Reactions to Human Plasma Proteins, 8 Anaesthesia & Intensive Care 139 (1980).

CANCER RECURRENCE/IMMUNE SUPPRESSION

- Edna & Bjerkeset, Association Between Blood Transfusion and Infection in Injured Patient, 33 J. Trauma 659 (1992).
- Tadros, et al., Blood Transfusion Impairs the Healing of Experimental Intestinal Anastomoses, 215 Annals Surgery 276 (1992).
- von Doersten, et al., Transfusion, Recurrence, and Infection in Head and Neck Cancer Surgery, 106 Otolaryngology-Head & Neck Surgery 60 (1992).
- Klein, Immunologic Effects of Transfusion, in Immunosuppressive Effect of Blood Transfusion 1 (H. Klein & P. Tarrtter eds. 1991).
- Tarrtter, Transfusion Risks in Cancer, in Immunosuppressive Effect of Blood Transfusion 17 (H. Klein & P. Tarrtter eds. 1991).
- Pinto, et al., Relationship of Transfusion and Infectious Complications After Gastric Carcinoma Operations, 31 Transfusion 114 (1991).
- Blumberg, et al., Further Evidence Supporting a Cause and Effect Relationship Between Blood Transfusion and Earlier Cancer Recurrence, 207 Annals Surgery 410 (1988).
- Wu, et al., Perioperative Blood Transfusions and Cancer Recurrence, 6 J. Clinical Oncology 1348 (1988).
- Blumberg & Heal, Perioperative Blood Transfusion and Solid Tumour Recurrence, 1 Blood Reviews 219 (1987).

Waymack, et al., Effect of Blood Transfusions on Immune Function, 122 Archives Surgery 56 (1987).

HEPATITIS

- Carson, et al., The Risks of Blood Transfusion: The Relative Influence of Acquired Immunodeficiency Syndrome and Non-A, Non-B Hepatitis, 92 Am. J. Medicine 45 (1992).
- Lee, et al., Transfusion-Acquired Hepatitis A Outbreak from Fresh Frozen Plasma in a Neonatal Intensive Care Unit, 11 Pediatric Infectious Disease J. 122 (1992).
- Larson, et al., Posttransfusion Hepatitis B Transmitted by Blood from a Hepatitis B Surface Antigen-Negative Hepatitis B Virus Carrier, 30 Transfusion 431 (1990).
- Seeff & Dienstag, Transfusion-Associated Non-A, Non-B Hepatitis —Where Do We Go from Here?, 95 Gastroenterology 530 (1988).
- Wick, et al., Non-A, Non-B Hepatitis Associated with Blood Transfusion, 25 Transfusion 93 (1985).
- Stevens, et al., Hepatitis B Virus Antibody in Blood Donors and the Occurrence of Non-A, Non-B Hepatitis in Transfusion Recipients, 101 Annals Internal Med. 733, 736 (1984).

HIV-I, HIV-II (AIDS)

- Conley, et al., Transmission of AIDS from Blood Screened Negative for Antibody to the Human Immunodeficiency Virus, 326 New Eng. J. Med. 1499 (1992) (letter).
- Tessman, The Risk of HIV-1 in Screened Blood Donations, 325 New Eng. J. Med. 1746 (1991) (letter).
- Burger, et al., Long HIV-1 Incubation Periods and Dynamics of Transmission Within a Family, The Lancet, July 21, 1990, at 134.
- Busch, et al., Risk Associated with Transfusion of HIV-Antibody-Negative Blood, 322 New Eng. J. Med. 850 (1990) (letter).

- Donahue, et al., Transmission of HIV by Transfusion of Screened Blood, 323 New. Eng. J. Med. 1709 (1990) (letter).
- Donegan, et al., Infection with Human Immunodeficiency Virus Type 1 (HIV-1) Among Recipients of Antibody-Positive Blood Donations, 113 Annals Internal Med. 733 (1990).
- Lee, et al., Symptomless HIV Infection After More than Ten Years, The Lancet, Feb. 17, 1990, at 425 (letter).

Haseltine, Silent HIV Infections, 320 New Eng. J. Med. 1487 (1989).

- Imagawa, et al., Human Immunodeficiency Virus Type I Infection in Homosexual Men Who Remain Seronegative for Prolonged Periods, 320 New Eng. J. Med. 1458 (1989).
- Salzberg, et al., Transmission of HIV by Blood Transfusion, 319 New Eng. J. Med. 513 (1988) (letter).
- Van der Poel, et al., Transmission of HIV by Transfusion of ELISA-Negative Blood, 54 Vox Sanguinis 247 (1988) (letter).
- Ward, et al., Transmission of Human Immunodeficiency Virus (HIV) by Blood Transfusions Screened as Negative for HIV Antibody, 318 New Eng. J. Med. 473 (1988).
- Foppa, et al., Risk of Human Immunodeficiency Virus Infection in Multiple Transfused Patients, 27 Transfusion 217 (1987).
- Peterman, Transfusion-Associated Acquired Immunodeficiency Syndrome, 11 World J. Surgery 36 (1987).
- Ward, et al., Risk of Human Immunodeficiency Virus Infection from Blood Donors Who Later Developed the Acquired Immunodeficiency Syndrome, 106 Annals Internal Med. 61 (1987).
- Maloney, et al., AIDS in a Child 5-1/2 Years After a Transfusion, 312 N. Eng. J. Med. 1256 (1985) (letter).

- Donegan, et al., Transfusion of Blood Components from a Donor with Human T-Lymphotropic Virus Type II (HTLV-II) Infection, 113 Annals Internal Med. 555 (1990).
- Cohen, et al., Transmission of Retroviruses by Transfusion of Screened Blood in Patients Undergoing Cardiac Surgery, 320 New Eng. J. Med. 1172 (1989).
- Leukemia Patients May Risk HTLV-I by Transfusion, Internal Med. News, April 1-14, 1988, at 13.
- Minamoto, et al., Infection with Human T-Cell Leukemia Virus Type I in Patients with Leukemia, 318 New Eng. J. Med. 219 (1988).

d. Management without homologous transfusion therapy

The report of the Presidential Commission on the AIDS epidemic exposed the error in assuming that what is or has been standard practice is necessarily good practice. Casting much doubt on the accepted standards of transfusion practice for the past several decades, this report stated: "[T]he surest preventive measure with regard to the blood supply is to eliminate the exposure of a patient to the blood of others" *Report of the Presidential Commission on the Human Immunodeficiency Virus Epidemic* 78 (1988). This Commission recommended that informed consent be obtained before the administration of any blood product. The Commission said that the process of obtaining such consent

should include an explanation of the risks involved with the transfusion of blood and its components, including the possibility of HIV infection, and information about appropriate alternatives to homologous blood transfusion therapy. These specifically include pre-deposit autologous blood, intra-operative autologous transfusion, hemodilution techniques, and post-operative collection.

Id. at 79. If the prudent and humane procedure is to obtain the patient's consent before the use of any blood product, a doctor's opinion should hardly be sufficient to override the patient's right of choice.

Moreover, this same Presidential Commission made the following more comprehensive recommendation:

In health care facilities, all reasonable strategies to avoid a transfusion of someone else's blood (homologous transfusion) should be implemented by substituting, whenever possible, transfusion with one's own blood (autologous transfusion). Currently available techniques of autologous transfusion include predonation of one's own blood, recirculation of one's own blood during surgery (intraoperative autologous transfusion), blood dilution techniques (hemo-dilution), and post-operative collection for retransfusion (post-operative salvage). Health care facilities should offer aggressive in-service training to their staff on these procedures, and informed consent for the transfusion of blood or its components should include an explanation of the risk involved with transfusion as well as the alternatives to homologous transfusion.

Id. at XIX. Some of the methods of alternative management recommended by this Presidential Commission (i.e., intraoperative blood salvage, hemodilution, as well as some methods of post-operative blood salvage) have been sought by Jehovah's Witnesses for years. See Awake!, Nov. 22, 1991, at 10; Watch Tower Bible & Tract Soc'y Pa., How Can Blood Save Your Life? 13-17 (1990); The Watchtower, Mar. 1, 1989, at 30-31; Thomas, Meeting the Surgical and Ethical Challenge Presented by Jehovah's Witnesses, 128 Can. Med. A.J. 1153 (1983); Dixon & Smalley, Jehovah's Witnesses: The Surgical/Ethical Challenge, 246 J. A.M.A. 2471 (1981); Watch Tower Bible & Tract Soc'y Pa., Jehovah's Witnesses and the Question of Blood 49-58 (1977); Watch Tower Bible & Tract Soc'y Pa., Blood, Medicine, and the Law of God 40-47 (1961); Awake!, Aug. 8, 1950, at 3-12.

Clinical practice and the medical literature show that an acceptable standard of treatment can be provided without the use of blood. Thus, although professional habits die hard, the following references show that all nature of medical and surgical care can be successfully managed without homologous blood:

- Solomon, Induced Hypotension and Isovolemic Hemodilution, 5 Spine: State Art Revs. 35 (1991).
- Kafer & Collins, Acute Intraoperative Hemodilution and Perioperative Blood Salvage, 8 Anesthesiology Clinics N. Am. 543 (1990).
- Trouwborst, et al., Acute Hypervolaemic Haemodilution to Avoid Blood Transfusion During Major Surgery, The Lancet, Nov. 24, 1990, at 1295.
- Matsuki, et al., Total Spinal Anaesthesia for a Jehovah's Witness with Primary Aldosteronism, 43 Anaesthesia 164 (1988).
- Stone & DiFazio, DDAVP to Reduce Blood Loss in Jehovah's Witnesses, 69 Anaesthesiology 1028 (1988).
- Garcia, et al., General Anesthesia for the Anemic Patient Without Blood Therapy, 1 J. Bloodless Med. & Surgery 20 (1983).
- Schaller, et al., Hemodilution Anesthesia: A Valuable Aid to Major Cancer Surgery in Children, 146 Am. J. Surgery 79 (1983).
- Lorhan & Burch, Anesthesia for a Jehovah's Witness with a Low Hematocrit, 29 Anesthesiology 847 (1968).

ANEMIA

- Davis, et al., Erythropoietin for Anemia in a Preterm Jehovah's Witness Baby, 28 Early Human Dev. 279 (1992).
- Simon, et al., Indications for Autologous Transfusions, 267 J. A.M.A. 2669 (1992) (letter).
- Fullerton, et al., Use of Human Recombinant Erythropoietin to Correct Severe Preoperative Anemia, 51 Annals Thoracic Surgery 825 (1991).
- Hirashima, et al., Improvement in Anemia by Recombinant Human Erythropoietin in Patients with Myelodysplastic Syndrome and Aplastic Anemia, 88 Contributions Nephrology 254 (1991).
- Salem, et al., Bedside Diagnostic Blood Testing: Its Accuracy, Rapidity, and Utility in Blood Conservation, 266 J. A.M.A. 382 (1991).

- Sobota, The Role of Recombinant Human Erythropoietin in Homologous Transfusion Avoidance, 88 Contributions Nephrology 334 (1991).
- Steinberg, Erythropoietin for Anemia of Renal Failure in Sickle Cell Disease, 324 New Eng. J. Med. 1369 (1991) (letter).
- Green & Handley, Erythropoietin for Anemia in Jehovah's Witnesses, 113 Annals Internal Med. 720 (1990) (letter).
- Koestner, et al., Use of Recombinant Human Erythropoietin (r-HuEPO) in a Jehovah's Witness Refusing Transfusion of Blood Products: Case Report, 30 J. Trauma 1406 (1990).
- Spence, et al., Elective Surgery Without Transfusion: Influence of Preoperative Hemoglobin Level and Blood Loss on Mortality, 159 Am. J. Surgery 320 (1990).
- Howell & Bamber, Severe Acute Anaemia in a Jehovah's Witness-Survival Without Blood Transfusion, 42 Anaesthesia 44 (1987).
- Dudrick, et al., Rapid Restoration of Red Blood Cell Mass in Severely Anemic Surgical Patients Who Refuse Transfusion, 120 Archives Surgery 721 (1985).
- Dorsey & Stone, *Emergency Portocaval Shunting in a Jehovah's Witness*, 23 Can. J. Surgery 197 (1980).
- O'Malley, Emergency Surgical Procedures in Adult Jehovah's Witnesses, 9 Abdominal Surgery 158 (1967).

BLOOD DISORDERS

- Al-Momen, Recombinant Human Erythropoietin Induced Rapid Healing of a Chronic Leg Ulcer in a Patient with Sickle Cell Disease, 86 Acta Haematologica 46 (1991).
- Klingemann, et al., The Role of Erythropoietin and Other Growth Factors in Transfusion Medicine, 5 Transfusion Med. Revs. 33 (1991).
- Rose & Aledort, Nasal Spray Desmopressin (DDAVP) for Mild Hemophilia A and von Willebrand Disease, 114 Annals Internal Med. 563 (1991).

- Aledort, New Approaches to Management of Bleeding Disorders, Hosp. Practice, Feb. 1989, at 207.
- Mannucci, Desmopressin: A Nontransfusional Form of Treatment for Congenital and Acquired Bleeding Disorders, 72 Blood 1449 (1988).
- Asbill, et al., A Jehovah's Witness with Thrombocytopenia, Hosp. Prac., Sept. 1984, at 82CC.

BURNS

- Boshkov, et al., Recombinant Human Erythropoietin for a Jehovah's Witness with Anemia of Thermal Injury, 37 Am. J. Hematology 53 (1991).
- Law, et al., The Use of Erythropoietin in Two Burned Patients who are Jehovah's Witnesses, 17 Burns 75 (1991).
- Schlagintweit, et al., *Major Burns Managed Without Blood or Blood Products*, 11 J. Burn Care & Rehabilitation 214 (1990).
- Waters, et al., *Hetastarch: An Alternative Colloid in Burn Shock Management*, 10 J. Burn Care & Rehabilitation 11 (1989).

CANCER

- Advani, et al., Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF) as an Adjunct to Autologous Hemopoietic Stem Cell Transplantation for Lymphoma, 116 Annals Internal Med. 183 (1992).
- Gulati & Bennett, Granulocyte-Macrophage Colony-Stimulating Factor (GM-CSF) as Adjunct Therapy in Relapsed Hodgkin Disease, 116 Annals Internal Med. 177 (1992).
- Holley, et al., Recombinant Human Erythropoietin in a Patient with Multiple Myeloma and End-Stage Renal Disease, 37 Clinical Nephrology 145 (1992).
- Verhoef, et al., Recombinant Human Erythropoietin for the Treatment of Anemia in the Myelodysplastic Syndromes: A Clinical and Erythrokinetic Assessment, 64 Annals Hematology 16 (1992).

- Bowen, et al., The Treatment of Anaemia in the Myelodysplastic Syndromes with Recombinant Human Erythropoietin, 77 Brit. J. Haematology 419 (1991).
- Davis & Brown, Epoetin Alfa for Anaemia of Chronic Leukemia, The Lancet, Jan. 5, 1991, at 47 (letter).
- Furman, et al., Therapeutic Effects and Pharmocokinetics of Recombinant Human Granulocyte-Macrophage Colony-Stimulating Factor in Childhood Cancer Patients Receiving Myelosuppressive Chemotherapy, 9 J. Clinical Oncology 1022 (1991).
- Furukawa, et al., Successful Treatment of Chronic Idiopathic Neutropenia Using Recombinant Granulocyte Colony-Stimulating Factor, 62 Annals Hematology 22 (1991).
- Herrmann, et al., Treatment of Patients with Anemia of Malignancy with Recombinant Human Erythropoietin, 88 Contributions Nephrology 238 (1991).
- Johnson, et al., The Use of Erythropoietin in a Jehovah's Witness Undergoing Major Surgery and Chemotherapy, 63 Brit. J. Cancer 476 (1991) (letter).
- Ben-Bassat, et al., Tranexamic Acid Therapy in Acute Myeloid Leukemia: Possible Reduction of Platelet Transfusion, 45 European J. Haematology 86 (1990).
- Cullis & Smith, Jehovah's Witnesses with Leukaemia, The Lancet, Oct. 27, 1990, at 1075 (letter).
- Goldberg, et al., Should Jehovah's Witnesses Be Denied Intensive Chemotherapy for Acute Leukemia?, 322 New Eng. J. Med. 777 (1990) (letter).
- Hargis, et al., Induction Chemotherapy in Jehovah's Witnesses with Leukaemia, The Lancet, Sept. 1, 1990, at 563.
- Heinz, et al., Erythropoietin for Chemotherapy Patient Refusing Blood Transfusion, The Lancet, Mar. 3, 1990, at 542 (letter).
- Matsumoto, et al., Effect of Recombinant Human Erythropoietin on Anticancer Drug-Induced Anaemia, 75 Brit. J. Haematology 463 (1990).
- Oster, et al., Erythropoietin Prevents Chemotherapy-Induced Anemia: Case Report, 60 Blut 88 (1990).

- Oster, et al., Erythropoietin for the Treatment of Anemia of Malignancy Associated with Neoplastic Bone Marrow Infiltration, 8 J. Clinical Oncology 956 (1990).
- Spivak, Application of Recombinant Human Erythropoietin in Oncology, 8 Cancer Investigation 301 (1990).
- Greenbaum & Herman, Transfusion Therapy in Pediatric Oncology, 17 Pediatric Annals 687 (1988).
- Kearney, Leukaemia in Children of Jehovah's Witnesses: Issues and Priorities in a Conflict of Care, 4 J. Med. Ethics 32 (1978).
- Frankel, et al., Childhood Cancer and the Jehovah's Witness Faith, 60 Pediatrics 916 (1977).

MAJOR SURGERY

1. Abdominal

- Kram, et al., Techniques of Hepatic Hemostasis Using Fibrin Glue, 37 Contemporary Surgery 11 (1990).
- Grubbs, et al., Acute Hemodilution in an Anemic Jehovah's Witness During Extensive Abdominal Wall Resection and Reconstruction, 22 Annals Plastic Surgery 448 (1989).
- Ryan & Faulkner, Liver Resection Without Blood Transfusion, 157 Am. J. Surgery 472 (1989).
- Kambouris, Major Abdominal Operations on Jehovah's Witnesses, 53 Am. Surgeon 350 (1987).

2. Cardiac

- Estioko, et al., Reoperation, Emergency and Urgent Open Cardiac Surgery in Jehovah's Witnesses, 102 Chest 50 (1992).
- Gaudiani & Mason, Preoperative Erythropoietin in Jehovah's Witnesses Who Require Cardiac Procedures, 51 Annals Thoracic Surgery 823 (1991).
- Hunt & Yacoub, Aprotinin and Cardiac Surgery Reduces Perioperative Blood Loss, 303 Brit. Med. J. 660 (1991).

- Burnett, et al., Heart Transplantation in Jehovah's Witnesses: An Initial Experience and Follow-up, 125 Archives Surgery 1430 (1990).
- Kyger & Blakestad, Management of Jehovah's Witness Patients, 50 Annals Thoracic Surgery 167 (1990) (letter).
- Pitmann & Inahara, Eliminating Homologous Blood Transfusions During Abdominal Aortic Aneurysm Repair, 159 Am. J. Surgery 522 (1990).
- Corno, et al., Heart Transplantation in a Jehovah's Witness, 5 J. Heart Transplantation 175 (1986).
- Henling, et al., Cardiac Operation for Congenital Heart Disease in Children of Jehovah's Witnesses, 89 J. Thoracic & Cardiovascular Surgery 914 (1985).
- Kawaguchi, et al., Total Bloodless Open Heart Surgery in the Pediatric Age Group, 70 Circulation I-30 (Supp. I 1984).
- Calthorpe, et al., The Use of the Cell Saver in a Jehovah's Witness Undergoing Major Cardiac Surgery—Case Report and Review, 76 Irish Med. J. 460 (1983).
- Levinsky, et al., Intracardiac Surgery in Children of Jehovah's Witnesses, 148 Johns Hopkins Med. J. 196 (1981).
- Lang, et al., Sequential Triple-Valve Replacement in a Jehovah's Witness, 122 Can. Med. A.J. 433 (1980).
- Ott & Cooley, Cardiovascular Surgery in Jehovah's Witnesses: Report of 542 Operations Without Blood Transfusion, 238 J. A.M.A. 1256 (1977).
- Sandiford, Aortocoronary Bypass in Jehovah's Witnesses: Review of 46 Patients, 42 Am. Surgeon 17 (1976).
- Bailey, et al., Open Heart Surgery Without Blood Transfusion, 5 Vascular Diseases 179 (1968).

3. Gastrointestinal

- Atabek, et al., Pancreaticoduodenectomy Without Homologous Blood Transfusion in an Anemic Jehovah's Witness, 127 Archives Surgery 349 (1992).
- van Cutsem, et al., Treatment of Bleeding Gastrointestinal Vascular Malformations with Oestrogen-Progesterone, The Lancet, April 21, 1990, at 953.

- Pousada, et al., Erythropoietin and Anemia of Gastrointestinal Bleeding in a Jehovah's Witness, 112 Annals Internal Med. 552 (1990) (letter).
- Sacks, et al., Endoscopic Hemostasis: An Effective Therapy for Bleeding Peptic Ulcers, 264 J. A.M.A. 494 (1990).
- Nearman & Eckhauser, Postoperative Management of a Severely Anemic Jehovah's Witness, 11 Critical Care Med. 142 (1983).
- Alexiu, et al., Gastro-intestinal Haemorrhage from Peptic Ulcer—An Evaluation of Bloodless Transfusion and Early Surgery, 30 Anaesthesia 609 (1975).
- Gordon, et al., Peptic Ulcer Hemorrhage: Vasopressin for a Jehovah's Witness, 79 Annals Internal Med. 451 (1973).

4. General

- Curry, Bloodless Surgery Meets Patient Needs for Alternatives, OR Manager, Jan. 1993, at 12.
- Skolnick, As the Blood Supply Gets Safer, Experts Still Call for Ways to Reduce the Need for Transfusions, 268 J. A.M.A. 698 (1992).
- Adamson, Cytokine Biology: Implications for Transfusion Medicine, 67 Cancer 2708 (May 15 Supp. 1991).
- Chernow, et al., Blood Conservation—A Critical Care Imperative, 19 Critical Care Med. 313 (1991).
- Goodnough & Geha, A New Era in Blood Conservation, 51 Annals Thoracic Surgery 703 (1991).
- Menitove, Benefits of Autologous Blood Transfusions, in Immunosuppressive Effect of Blood Transfusion 29 (H. Klein & P. Tarrtter eds. 1991).
- Goodnough, Erythropoietin as a Pharmacologic Alternative to Blood Transfusion in the Surgical Patient, 4 Transfusion Med. Revs. 288 (1990).
- Cooper, Perioperative Considerations in Jehovah's Witnesses, 28 Int'l Anesthesiology Clinics 210 (1990).
- Reed & Taylor, *The Microwave Coagulating Scalpel: Clinical Use*, 36 Contemp. Surgery 22 (1990).

Martin, et al., Acute Limited Normovolemic Hemodilution: A Method for Avoiding Homologous Transfusion, 11 World J. Surgery 53 (1987).

Smith, Surgery in Jehovah's Witnesses, 78 J. Nat'l Med. A. 668 (1986).

- Licthiger, et al., Hemotherapy During Surgery for Jehovah's Witnesses: A New Method, 61 Anesthesia & Analgesia 618 (1982).
- Lapin, Major Surgery in Jehovah's Witnesses, 2 Contemp. Orthopaedics 647 (1980).
- Gollub & Bailey, Management of Major Surgical Blood Loss Without Transfusion, 198 J. A.M.A. 1161 (1971).
- Simmons, et al., Vascular Surgery in Jehovah's Witnesses, 213 J. A.M.A. 1032 (1970).

5. Gynecologic/Obstetric

- Huch, et al., Recombinant Human Erythropoietin in the Treatment of Postpartum Anemia, 80 Obstetrics & Gynecology 127 (1992).
- Kirsop & Jakubowicz, Management of Haemorrhage in a Case of Acute Fatty Liver of Pregnancy by Internal Iliac Artery Embolisation, 99 Brit. J. Obstetrics & Gynaecology 1014 (1992).
- W. Cohen, *Postpartum Uterine Hemorrhage*, in Complications of Pregnancy: Medical, Surgical, Gynecologic, Psychosocial, and Perinatal (S. Cherry & I. Merkatz 4th ed. 1991).
- Danko, et al., Epoetin Alfa for Treatment of Postpartum Anemia, The Lancet, Mar. 24, 1990, at 737 (letter).
- Klapholz, Blood Transfusion in Contemporary Obstetric Practice, 75 Obstetrics & Gynecology 940 (1990).
- Patsner & Orr, Intractable Venous Sacral Hemorrhage: Use of Stainless Steel Thumbtacks to Obtain Hemostasis, 162 Am. J. Obstetrics & Gynecology 452 (1990).
- Zichella & Gramolini, Autotransfusion During Cesarean Section, 162 Am. J. Obstetrics & Gynecology 295 (1990) (letter).

- Silva & Beguin, Intraoperative Rapid Autologous Blood Transfusion, 160 Am. J. Obstetrics & Gynecology 1226 (1989).
- Reid, et al., Eclampsia and Haemorrhage in a Jehovah's Witness, 41 Anaesthesia 324 (1986).
- Powell, et al., A Deliberate Hypotensive Technique for Decreasing Blood Loss During Radical Hysterectomy and Pelvic Lymphadenectomy, 147 Am. J. Obstetrics & Gynecology 196 (1983).
- Bonakdar, et al., Major Gynecologic and Obstetric Surgery in Jehovah's Witnesses, 60 Obstetrics & Gynecology 587 (1982).

6. Neurologic

- Ishiwata, et al., A New Intracranial Silastic Encircling Clip for Hemostasis, 73 J. Neurosurgery 638 (1990).
- Lunsford, et al., Stereotactic Gamma Knife Radiosurgery: Initial North American Experience in 207 Patients, 47 Archives Neurology 169 (1990).
- Weber, Radiosurgery Cuts Danger in Treating Brain Lesions, Med. Post, Mar. 13, 1990, at 47.
- Heros & Korosue, Hemodilution for Cerebral Ischemia, 20 Stroke 423 (1989).
- Fink, et al., Early Surgery and Prophylactic Volume Expansion for the Treatment of Ruptured Intracranial Aneurysms, 38 (Supp 1) Neurology 132 (1988).

7. Orthopedic

- Kim, et al., Relationship of Hemoglobin Level and Duration of Hospitalization after Total Hip Arthroplasty: Implications for the Transfusion Target, 68 Mayo Clinic Proc. 37 (1993).
- Wittmann & Wittmann, Total Hip Replacement Surgery Without Blood Transfusion in Jehovah's Witnesses, 68 Brit. J. Anaesthesia 306 (1992).
- Nelson, et al., Blood Conservation Techniques in Orthopaedic Surgery, 39 Instructional Course Lectures 425 (1990).
- Mariorenzi, et al., Quadruple Major Joint Replacement in Member of Jehovah's Witnesses, 15 Orthopaedic Rev. 531 (1986).

- Nelson, et al., Total Hip Arthroplasty in Jehovah's Witnesses Without Blood Transfusion, 68-A J. Bone Joint Surgery 350 (1986).
- Cunningham, Controlled Hypotension to Minimize Blood Loss of Anaemic Jehovah's Witness Patient Undergoing Total Hip and Shoulder Replacement, 54 Brit. J. Anaesthesia 895 (1982).
- Rab, et al., Bilateral Total Hip Arthroplasty in a Jehovah's Witness with Chronic Anemia, 163 Clinical Orthopaedics & Related Res. 134 (1982).
- Wong, et al., Hemodilution and Induced Hypotension for Insertion of a Harrington Rod in a Jehovah's Witness Patient, 152 Clinical Orthopaedics 237 (1980).
- 8. Spinal
- Brodsky, et al., Hypotensive Anesthesia for Scoliosis Surgery in Jehovah's Witnesses, 16 Spine 304 (1991).
- Milani, Blood Preservation in Spine Surgery: An Overview, 5 Spine: State Art Revs. 17 (1991).
- Sparks, et al., Blood Salvage Techniques in Scoliosis Surgery, 5 Spine: State Art Revs. 67 (1991).
- Rothstein, et al., Preoperative Use of Erythropoietin in an Adolescent Jehovah's Witness, 73 Anesthesiology 568 (1990).
- Bowen, et al., Posterior Spinal Fusion Without Blood Replacement in Jehovah's Witnesses, 193 Clinical Orthopaedics & Related Res. 284 (1985).
- Winter & Swayze, Severe Neurofibromatosis Kyphoscoliosis in a Jehovah's Witness—Anterior and Posterior Spine Fusion Without Blood Transfusion, 8 Spine 39 (1983).
- Bonnett, et al., Posterior Spinal Fusion with Harrington Instrumentation—For Idiopathic Scoliosis in Jehovah's Witnesses, 9 Orthopaedic Rev. 27 (1980).
- Bonnett, et al., Neurological Orthopedic Spinal Surgery in Jehovah's Witness Patients, 1 J. Neurological & Orthopaedic Surgery 121 (1980).

9. Urologic

- Connor & Olsson, The Use of Recombinant Human Erythropoietin in a Jehovah's Witness Requiring Major Reconstructive Surgery, 147 J. Urology 131 (1992).
- Kaufman, et al., A Single-Center Experience of Renal Transplantation in Thirteen Jehovah's Witnesses, 45 Transplantation 1045 (1988).

Kaufman, et al., *Transplantation in Jehovah's Witnesses*, 19 Transplantation Proceedings 3693 (1987).

Roen & Velcek, Extensive Urologic Surgery Without Blood Transfusion, 72 N.Y. St. J. Med. 2524 (1972).

3. Choice of Treatment and Respect for Patients

In his famous dissent in Olmstead v. United States, 277 U.S. 438, 48 S. Ct. 564, 72

L. Ed. 944 (1928), Louis Brandeis described the essential objectives of our constitutional system of law:

The makers of our Constitution undertook to secure conditions favorable to the pursuit of happiness. They recognized the significance of man's spiritual nature, of his feelings and of his intellect. They knew that only a part of the pain, pleasure and satisfactions of life are to be found in material things. They sought to protect Americans in their beliefs, their thoughts, their emotions and their sensations.

Id. at 478, 48 S. Ct. at 572. Individual self-determination is the core value of our scheme.

"What a person is, what he wants, the determination of his life plan, of his concept of the good, are the most intimate expressions of self-determination, and by asserting a person's responsibility for the results of this self-determination we give substance to the concept of liberty." C. Fried, *Right and Wrong* 146-47 (1978).

When it comes to decisions about what should be done to a person's body, who should make the highly subjective, value-laden decisions about what is the "correct" or "best" form of medical treatment? The doctor, some hospital administrator, a judge, or the patient? Whose values should determine what the benefits and risks are, both physically and otherwise? The answer is obvious. Since "[m]edical decisions involve both uncertainty and conflicts of judgment and value[,] [n]either experts nor society can judge what is best for an individual better than the individual herself." Shultz, *From Informed Consent to Patient Choice: A New*

Protected Interest, 95 Yale L.J. 219, 292 (1985).

[R]ational patients will not want only their medical benefits considered. Reasonable people have a range of objectives they want to pursue. They are interested not only in medical benefits, but psychological, social, economic, legal, religious, and educational benefits. Maximizing the good in one of these spheres will come at a cost in some other sphere. Rational people will trade off benefits in different spheres until the aggregate total is maximized. This means that often it is irrational to maximize one's welfare in any one sphere. To the extent that the physician is committed to maximizing the patient's medical well-being, rational patients often will not find the recommended course in their overall interest.

Veatch, Physicians and Cost Containment: The Ethical Conflict, 30 Jurimetrics J. 461, 464

(1990).

In matters of healthcare decisionmaking, the patient's individual, subjective values

must be respected.

[T]he uncertainty and diversity of medical opinion necessarily turn much of medical decision-making into an exercise in electiveness. If cost-benefit comparisons (financial and otherwise) are not made by the patient, there is a significant danger that decisions will reflect the doctor's attitudes and values rather than the patient's.

Shultz, supra, 95 Yale L.J. at 272.

[N]o one has the wisdom or ethical authority to declare what is an "acceptable" or "reasonable" risk for a woman to take if she herself is unwilling to face it. . . Forcing women to undergo medical treatment against their wills is too weighty a matter to be left to the vagaries of personal interpretation by physicians and judges.

Nelson & Milliken, Compelled Medical Treatment of Pregnant Women, 259 J. A.M.A. 1060, 1064 (1988).

Conclusion

"[R]espect for the individual . . . is the lifeblood of the law." Illinois v. Allen, 397 U.S. 337, 351, 90 S. Ct. 1057, 1064, 25 L. Ed. 2d 353, 363 (1970) (Brennan, J., concurring). Patricia Dubreuil deserved such respect. She had dedicated her life to serving her God Jehovah. Luke 10:27. Nothing was more important to her than doing Jehovah's will. As a true Christian, she strove to imitate Jesus in his obedience to his Father. John 4:34; 1 Peter 2:21; 1 Corinthians 11:1. Blood transfusion was abhorrent to her sensibilities as a sincere Christian. That Patricia's choice of nonblood management may seem unusual or ill-advised to most doctors or even the public at large is of no moment. "[F]reedom to differ is not limited to things that do not matter much. That would be a mere shadow of freedom. The test of its substance is the right to differ as to things that touch the heart of the existing order." West Virginia State Bd. of Educ. v. Barnette, 319 U.S. 624, 642, 63 S. Ct. 1178, 1187, 87 L. Ed. 1628, 1639 (1943). Patricia Dubreuil should not have been subjected to a forcible violation of her values and her person.

Respectfully submitted, leur William E. Hoey, Esq.

William E. Hoey, Esq. Florida Bar No. 144955 222 U.S. Highway One - Suite 213 Tequesta, FL 33469

Attorney for Amicus Curiae Watchtower Bible and Tract Society of New York, Inc.

Certificate of Service

Pursuant to Fla. R. App. P. 9.420(c)(2), I certify that a copy hereof has been furnished to:

Cynthia L. Greene, Esq. Elser, Greene & Hodor Suite 2100 - Courthouse Tower 44 West Flagler Street Miami, FL 33130

Attorneys for Petitioner

Clarke Walden, Esq. Five East Tower - Room 533 3501 Johnson Street Hollywood, FL 33021

Attorney for Respondent

by mail this <u>/7</u> day of February, 1993.

A and William E. Hoey, Esq.

Florida Bar No. 144955 222 U.S. Highway One - Suite 213 Tequesta, FL 33469

Attorney for Amicus Curiae Watchtower Bible and Tract Society of New York, Inc.

Table of Contents

	Page
Table of Citations	. ii
Statement of the Case and of the Facts	. 1
Summary of Argument	. 2
Argument	3
1. Jehovah's Witnesses and the Use of Blood	. 5
a. A historical overview of the use of blood	. 5
b. Blood and the Holy Scriptures	. 8
c. Commentary on the Christian prohibition of blood	. 10
d. Jehovah's Witnesses and blood	. 16
2. Blood Transfusion Therapy	. 18
a. Uncertainty of medical practice	. 19
b. Uncertainty of transfusion practice	. 22
c. Hazards and complications of transfusion therapy	. 27
d. Management without homologous transfusion therapy	. 33
3. Choice of Treatment and Respect for Patients	. 45
	. 47

Certificate of Service