

HANDLING MEDICAL EVIDENCE¹

“Clergyman? Butcher? Lawyer? Politician? WHOM CAN YOU TRUST? Dishonesty has penetrated almost every walk of life. Certainly we need a voice we can trust. The *Watchtower* and *Awake!* are such voices. You can trust them. Why? Because these magazines are pledged to uphold the righteous standards of the Bible”. (*Awake!* October 22, 1984, page 32 advertisement, Australian edition)

“Avoid Independent Thinking. ... How is ... independent thinking manifested? A common way is by questioning the counsel that is provided by God’s visible organization

“Fight Against Independent Thinking. ... Today Jehovah is using only one organization. ... We should ask ourselves: ... ‘Can we get along without the direction of God’s organization?’ No, we cannot!” (*Watchtower*, January 15, 1983, pages 22, 27)

This discussion addresses the manner in which the Watchtower Society (WTS) handles medical sources in its definitive booklet “*Jehovah’s Witnesses and the Question of Blood*” (QB).

The authorities presented and discussed in this Chapter were determined by material available from the Medical Libraries at the University of Melbourne and the Red Cross Society in Melbourne, Australia. There was no prejudicial selection of the material considered. It should not be construed these statements are exhaustive, nevertheless sufficient is provided to determine the constant nature of the Watchtower Organisation.

It is not the object of this Study either to promote or to denigrate the medical procedure, but to consider the WTS’s handling of the matter. A decision regarding the worth or otherwise of a specific need to transfuse blood is a separate matter between patient and their medical professional.

The purpose of this Study is to examine the Watchtower Society. For this reason, the significance of the medical sources lies not in their content or message, but in considering how the WTS handles them.

The WTS sees benefit in considering medical sources:

“There is benefit in briefly examining the medical implications of refusing blood ... The ‘advantages and disadvantages of the form of treatment’ merit consideration.” (QB pages 38-39)

Thus, both the *advantages* and the *disadvantages* merit careful consideration. There are dangers involved in any medical procedure, and the transfusion of blood is no exception. There are dangers even with “aspirin and penicillin” (QB page 41). However, there are life-saving benefits obtained from medical procedures, including the transfusion of blood.

Most important is the Watchtower Society’s handling of the facts. Does it carefully present both sides of the story or has it suppressed relevant information to suit its own ends? Does the QB booklet present all the facts honestly and openly, using all the relevant authorities? Does the WTS present all pertinent information given by those authorities it does quote? Or is its selection of the sources, the quotations and the articles determined by its predetermined conclusion?

GOD, BLOOD AND SOCIETY, A.D. Farr
(QB. page 36, ref.40; QB. page 40, ref.47)

As the QB states (page 36), Farr does not agree with the State overriding religious principles of any person (Farr, p. 115). This does not mean Farr agrees with the WTS’s position. In fact he specifically states he does not. He takes Voltaire’s stance:

“I disapprove of what you say, but will defend to the death your right to say it”
(Farr, page 116).

¹ This article was written in the 1980s as part of a response to the Watchtower Society’s booklet “*Jehovah’s Witnesses and the Question on Blood*”. The complete original Study that this is extracted from is available at: http://www.jwstudies.com/The_Watchtowers_Handling_of_Blood_Revision_2.pdf

The second reference in the QB booklet to Farr (QB page 40, ref. 47) states:

“nearly three hundred different Rh types may theoretically be recognised.” (Farr, page 32).

Farr continues, although the QB booklet does not:

“In view of the near impossibility of transfusing any blood which is exactly identical to that of the recipient a cross-match test is performed prior to every transfusion. ... It must be stressed that the risk of immunising is, outside of the Rh system, very small.” (Farr, page 32-33)

As a transfusion authority points out:

“There are well over 100 known blood group factors. However, the ABO and Rhesus systems are the most important as far as blood transfusion is concerned.” (*The Vital Factor*, Australian Red Cross Society, page 9)

It is good the QB booklet should acknowledge Farr’s book, since it is specifically written to expose theological and medical errors of the WTS. However, the WTS does not provide a balanced presentation of the book’s views and contents.

SURGERY, February 1974
(QB page 43, ref. 57)

The QB booklet quotes from an article appearing in the February 1974 issue of *Surgery*.

“major new problems related to massive transfusion have been proposed.” (*Surgery*, Feb 1974, pages 274-275)

The WTS fails to explain the context of the statement, that it is only one of three topics introduced at the *start* of the article and that, following a comprehensive analysis, the article concludes the problem is not as severe as was proposed.

The Introduction of the *Surgery* article, which concentrates on “*massive* transfusions of blood”, not those normally encountered, explains it is concerned with “three recent developments”:

“First was the war in Vietnam, where massive transfusion of blood reached an intensity of use never before approached. ... Second has been the development of improved analytic techniques which have made practical the more accurate study of these alleged problems. ... Finally, major new problems related to massive transfusion have been proposed.” (*Surgery*, op. cit., page 274, emphases supplied)

Those words quoted by the WTS in its booklet are therefore part of the *Introduction* to the *Surgery* article. They are simply a *proposition* considered by the author, along with two other developments. They are a proposition, not a conclusion.

After considering these developments carefully, the *Surgery* article concludes:

“Many of the serious toxicities attributed to the massive transfusion of stored blood are often due to giving too little blood or giving it too late. ...

“In spite of all the problems with liquid stored whole blood, we have a product that usually works well. Historically, as new problems associated with massive transfusion have been defined, they have almost always been grossly overstated.” (pages 290, 291)

Speaking of one of the developments referred to in its *Introduction*, namely the war in Vietnam, the article concludes:

“When one considers the great numbers of transfused casualties, the low mortality rate, and the fact that most such deaths were due to uncontrolled bleeding from combat injuries, the value of even our presently imperfect product in saving lives from massive haemorrhage becomes evident.” (page 291)

Having considered the proposition quoted by the QB booklet, the *Surgery* article concludes that the fears are grossly unfounded:

“Stored blood is useful and effective, even when it must be given rapidly in large amounts.” (page 291)

The QB booklet never mentions this.

SOUTHERN MEDICAL JOURNAL, April 1976
(QB page 42, ref.55; page 45, ref.61)

The purpose of the article in the April 1976 issue of the *Southern Medical Journal*, referred to by the QB booklet, is stated as being: “to review the major ‘risks’” of blood transfusion. (*Journal*, page 476).

As the QB booklet states, the *Journal* refers to the rate of deaths due to transfusions:

“It has been estimated (probably conservatively) that between 3,000 and 30,000 deaths attributable to transfusions occur annually in the United States.” (page 476)

The sentence immediately preceding this one refers to

“thoughtless prescription of blood transfusion”,

and adds that

“the odds are in the physician’s favour that nothing will go wrong” (page 476).

The article in the *Journal* does not attempt to whitewash the dangers associated with transfusions, for many deaths do occur, due almost invariably, in the light of present knowledge, to human error, not to the principle of transfusing blood.

The article in the *Journal*, in reviewing these major “risks”, comments on each. Each of the risks is treated in full. Some are considered as not serious or as rare, and others are listed as being minimised or managed through greater care. For example:

“HEMOLYTIC REACTION ... Most hemolytic transfusion reactions are due to errors in identification ... Great care must be taken in checking the name and hospital number on the patient’s identification bracelet, on the transfusion forms, and on the label of the tube into which the blood is placed. Likewise, when blood is given, it is imperative that all these checks are repeated carefully.” (*Journal*, page 476)

Some risks do, of course, pose serious problems. Post-transfusion hepatitis, “the most common cause of serious morbidity and mortality associated with transfusion, ... an especially serious disease in patients over the age of 40” (*Journal*, page 477), can only be prevented through not transfusing blood (page 478).

Post-transfusion hepatitis can be reduced by 25 per cent through careful screening of the donated blood. Also,

“the careful outscreening of donors with a history of hepatitis and the exclusion of high risk donors (prisoners, alcoholics and drug addicts) is essential, and the use of only volunteer donors usually is important.” (page 478)

The QB booklet cites page 477 of this *Journal* (QB, page 45, ref.61) in support of its statement that:

“one percent, or one person out of one hundred, contracts hepatitis following a transfusion”. (QB, page 45)

Actually, the *Journal* gives a figure of: “in the range of 0.1% to 1%” (page 477).

The WTS’s figure is in error by up to 10 times -- and it is a matter of simple reporting. The WTS could at least be accurate, particularly when lives are at risk. So many people rely on the information given them by the WTS, so the WTS should not inflate figures to suit its own ends. The article in the *Southern Medical Journal* concludes:

“The risks of morbidity and mortality associated with transfusion are so great that no transfusion should be given until it is decided that it is absolutely necessary, and then only with the utmost care.” (page 478)

This does not mean transfusion should cease, nor does the article state this. Indeed, the article opens with reference to a previous article by the same author in which he describes “the indications for transfusion of blood and blood components.” (*Journal*, page 476)

Recognition of dangers provides better protection, no matter what the endeavour. All medical processes are fraught with danger, yet this is no reason for not proceeding with them. The WTS accepts the dangers associated with medical processes, including those that are identical with transfusions.

Those components of blood that the WTS does accept, such as Factor 8 for haemophiliacs, are more susceptible to dangers than those components of blood it rejects:

“Albumin and plasma protein fraction ... carry no risk of causing hepatitis. However, all other blood components carry a risk. The risk with some components is greater than with others. Any component made from pools of plasma (eg, commercial concentrates of coagulation factors VIII or IX) carry a much greater risk.” (*Journal*, pages 477-478)

***THE GIFT RELATIONSHIP*, Richard Titmuss**
(QB page 44, ref.60; page 46, ref.67)²

Both references in the QB booklet to *The Gift Relationship* refer to the serum hepatitis problem. This problem is a real concern to all involved with Blood Transfusion. But the QB booklet fails to present a balanced report of the book's statements.

The booklet cites page 142 of *The Gift Relationship* in support of its statement:

“You can contract (serum hepatitis) from as little as one millionth of a milliliter of infected blood.” (QB page 44)

The Chapter of *The Gift Relationship* cited (“Is the Gift a Good One?” pages 142 – 157) concentrates on serum hepatitis, where it presents a serious indictment of the *commercial* supply of blood.

Reflecting the state of knowledge at the time of its publication (1970), the book introduces the then unproven screening agent of Australian Antigen (page 142, footnote). It provides U.S. estimates of an annual death rate of from 3,500 to 10,000 due to post-transfusion hepatitis. Studies presented in that Chapter show that transmission of diseases is minimal where purely voluntary sources of blood are employed and when that blood is far more plentiful.

The WTS ignored several significant statements in *The Gift Relationship*. In doing so, it failed to provide its readers the balance they deserve. Referring to serum hepatitis, the book does present a balanced view

“The development of homologous serum hepatitis is a hazard which besets rather less than 1 per cent of recipients of whole blood or small-pool plasma. ...

“Recipients vary in their susceptibility. It has been found that a minute fraction of a millilitre of virus-laden blood was enough to cause hepatitis and it was for this reason that the production of large-pool plasma ... was abandoned in favour of limited pools. ...

“Some patients suffer no upset from the transmitted virus, some may have only a transient liver dysfunction with or without jaundice and yet others may develop a rapidly fatal hepatic necrosis.” (pages 25 – 26)

The above present the British experience, where 99% of donations are given voluntarily, compared to 7% in the United States. This is why in Britain, states *The Gift Relationship*:

“In no case has the incidence (of hepatitis) been shown to be higher than 1% and in the most recent study (from Birmingham) it was nil. ...

“A study published in 1970 concluded that serum hepatitis is ‘an uncommon disease’ in Great Britain.” (page 154, footnote)

² In the UK, Australia, New Zealand and Canada, this book was published by Pelican. The reference to page 142 at Reference number 60 [QB page 44] appears at page 160 of the Pelican edition and the QB booklet's reference to page 147 [QB page 46, ref.67] appears at page 166 of the edition published by Pelican. Page numbering of the original George Allen & Unwin edition cited by the WTS is given in this Study.

The Gift Relationship shows the situation is critical in countries where donors receive payment for their blood, as in the United States and Japan. Here the problem stems from the poor quality of the donor, who is most often of a class susceptible to being a carrier of hepatitis, such as prisoners, narcotics users (having been infected from needles used in the self-administration of their drugs) and alcoholics.

Statements appearing in the Chapter of *The Gift Relationship* that the QB booklet refers to include

“One of the main keys to preventing hepatitis after transfusion ... was in the careful checking of the source of the blood. ... No matter what method of case finding was used, the lowest incidence of post-transfusion hepatitis was seen when commercially supplied was avoided. ... The risk of serum hepatitis from transfusions derived from prison and Skid Row populations is at least ten times that from the use of voluntary donors. The risk of hepatitis ‘developing in recipients of blood known to have been donated by convicted or suspected narcotics was 70 times that in the controls’. ... The only answer, according to other authorities, is to ‘eliminate the professional donor entirely’.” (pages 146, 147, 152)

The problem does not lie with the *principle* of blood transfusion but in the human factor, where drug users, as an example, sell their blood for money to buy more drugs. Such sources present a public health hazard. Such hazards are minimised when donations are made purely voluntarily. There is a difference between donated blood and commercially supplied blood.

“There are more deaths caused by the use of blood from paid donors than from the use of blood from volunteer donors.” (*The Gift Relationship*, page 152)

Other statements disregarded

Significant statements in *The Gift Relationship* have been completely disregarded by the QB booklet. For example:

“The Uniqueness of Blood. Despite the development of plasma substitutes and other products, advances in the freezing and preservation of blood to permit longer-term stockpiling, and the use of specific blood components, there is no substitute for the vast majority of patients for the direct use of fresh whole human blood. No alternative to whole blood and its main component elements has yet been developed in the research laboratory. The human body remains the only source.” (pages 20 – 21)

“The transfer of blood and blood derivatives from one human being to another represents one of the greatest therapeutic instruments in the hands of modern medicine. It has made possible the saving of life on a scale undreamt of several decades ago and for conditions which would have been considered hopeless.” (page 27)

“In medicine there is no substitute for human blood’.” (page 31)

In his book, author Richard Titmuss uses the topic of blood transfusion as a means for discussing social policy and social attitudes. His comments are pertinent to this present Study:

“In all cultures and societies, blood has been regarded as a vital, and often magical, life-sustaining fluid, marking all important events in life, marriage, birth, initiation and death. ... Symbolically and functionally, blood is deeply embedded in religious doctrine. ... From time immemorial it has symbolized qualities of fortitude, vigour, nobility, purity and fertility. Men have been terrified by the sight of blood; they have killed each other for it; believed it could work miracles. ...

“The very thought of blood, individual blood, touches the deepest feelings in man about life and death. ... Even in modern times, mystical and irrational group attitudes to blood have sharply distinguished certain Western societies – as in Hitler’s Germany with its myths of ‘Aryan’ and ‘Jewish’ blood.” (pages 15-16)

SCANDINAVIAN JOURNAL OF INFECTIOUS DISEASES, Vol.6, 1974
(QB page 46, ref. 65)

The QB booklet claims this *Journal* reports that:

“about 10 to 12 per cent of those contracting serum hepatitis from transfusions die as a result.” (page 46)

Actually the *Journal* really says “about 10%”. It does not say “about 10 to 12 per cent”:

“The lethality in post-transfusion hepatitis is about 10% in most studies.” (page 286)

The *Journal* continues (but QB does not):

“This is an unusually high lethality for acute hepatitis. However, the disease will most often attack patients in a poor general condition on account of disabling diseases. The long-term prognosis of the disease is good in most cases.” (pages 286 – 287)

A balanced view withheld

Other statements in the *Scandinavian Journal* present a balanced view of the problem. The QB did not give these other statements, but chose to ignore them, failing to present the “advantages” as well as the “disadvantages”. The *Journal* states, at the same context referred to by the QB booklet:

“Transfusion hepatitis is still a very small part of the total epidemiological problem of acute hepatitis in a population. Recent German reports have estimated that only about 3% of the total number of patients with acute hepatitis had received blood or blood products. ...

“Voluntary donors cause considerably less transfusion hepatitis than the paid donors. ... More than 30,000 cases occur every year in the USA with a mortality of several thousands. In Japan the problem is tremendous, while in Denmark, for instance, only 40 cases have occurred after 200,000 transfusions per year.” (pages 286 – 287, see also pages 288 – 289 and the Tables)

The article in the *Journal* concludes:

“By far the best donors are the voluntary donors and particularly those who persistently donate their blood and thus serve as their own safety control.” (page 289)

HEMATOLOGY, Prof. J.W. Linman

(QB pages 43-44, ref.58; page 46, ref.66; page 48, ref.73; page 50, ref.80)

At several occasions, the QB booklet refers to this book as authoritative. On page 43 the booklet reproduces the Table that appears on page 991 of Linman’s book. However, the QB booklet fails to reproduce the words that accompany this Table. Those words present a balanced picture of the situation, and explain the Table:

“When properly indicated, the benefits of transfusions far outweigh the risk of undesirable side effects

“Fortunately most complications are relatively mild; but some are fatal. Available data suggest a mortality of about one death in 5,000 transfusions; however this figure is most likely too high.” (pages 990 – 991)

The booklet by the WTS does not present this balanced view.

Febrile reactions: facts withheld

Page 44 of the QB booklet quotes from Linman’s book respecting Febrile Reactions. The booklet quotes one sentence from the book that refers to “severe febrile reactions ... in certain acutely ill patients”; these are extreme conditions.

To be fair and to show all aspects, the QB booklet should have quoted the preceding sentence. It reads:

“Most of these (febrile) reactions are mild, and slight fever may be missed if serial temperatures are not obtained.” (*Hematology* page 991)

Febrile reactions can also occur when non-blood solutions are used to replace blood loss: *The Journal of the Medical Association*, Feb 5, 1968, page 400; see QB pages 55, 57; refs 96, 103.

The QB booklet presents the serious situation of serum hepatitis but it fails to disclose the sentence in *Hematology* that follows the one it does quote:

“Human gamma globulin ... is the only available means of modifying the disease.” (*Hematology*, page 994)

That is, febrile reactions can be treated -- and the benefits of transfusions outweigh the risks (see *Hematology*, page 990).

Gross bacterial contamination: the facts

Page 48 of the QB booklet refers to the “gross bacterial contamination of blood”. It states quite simplistically: “certain types of bacteria can multiply in chilled blood”, giving as its reference page 995 of *Hematology* to indicate this and the “grave threats” these pose.

There is no denying these facts but the QB booklet has not given a balanced picture. This same book, *Hematology*, states that, using sterile containers and prompt refrigeration,

“there is little possibility of contamination with the common bacterial pathogens.”

This sentence immediately precedes those cited by the WTS. The book *Hematology* continues:

“Modern blood bank methods make gross bacterial contamination an unlikely occurrence.” (page 995)

There are risks in transfusions, but the benefits outweigh the risks when the need for a transfusion is clearly indicated. Risks exist with other medical procedures such as operations and the administration of drugs and medicines, particularly those that are self-prescribed, such as Aspirin.

The book *God, Blood and Society*, which is cited in the booklet at Reference 40 (page 36) as authoritative, states:

“The fact that the practice of blood transfusion can be abused does not *ipso facto* make the practice as such undesirable, as the Jehovah’s Witnesses suggest.” (page 42)

The existence of risks does not preclude the acceptance of medical procedures. The WTS accepts risks when it permits medical processes and when it accepts the use of some blood components.

Concerning the risks from treatment in a large Australian hospital, a survey showed errors in the administration of drugs to be as high as 13% (*Melbourne Herald*, Dec. 29, 1978, page 5). Would the WTS categorically state that the administration of all drugs should therefore cease? Would the WTS suggest that since more than 10,000 persons died in 1978 in the United States while undergoing unnecessary operations (*Melbourne Herald*, op.cit.), that no operations should be performed?

Reasons for transfusions

The final reference to *Hematology* appears at page 50 of the QB booklet (reference 80). The quotation is used with the intent of indicating that:

“Blood is not a tonic or a stimulant. ... A transfusion serves only to augment total blood volume, to enhance the oxygen-carrying capacity of the blood, and as a source of normal plasma constituents such as platelets and coagulant factors.” (page 985).

The quote in the QB booklet *omits all the words emphasised*, presumably because the WTS permits the use of blood plasma constituents for those purposes cited, such as Factor 8 for haemophiliacs. The sentences in *Haematology* immediately preceding the sentence quoted by the WTS provide the context:

“Insofar as possible only that component (or components) of blood that is deficient should be given. For example, a person who has a chronic anemia lacks red cells not plasma, a patient with a coagulation factor deficiency needs plasma not red

cells, and an individual with acute hemorrhage ordinarily requires whole blood. Blood is not a tonic or a stimulant; it will not promote wound healing or suppress an infection. ... (etc., as related in the QB booklet, page 50).” (*Hematology*, page 985)

The QB booklet attacks the two issues of “augmenting total blood volume” (page 50) and “enhancing the oxygen-carrying capacity of blood” page 51.

In a carefully presented analysis, in which he states “one cannot set fort guidelines for transfusion therapy applicable in all cases”, Linman gives “the basic indications for a blood transfusion” on this same page of his book. The WTS did not care to consider Linman’s reasoning in full, nor did it provide the list of “basic indications”:

“The basic indications for a blood transfusion are (1) to increase blood volume when hypovolemia consequent to acute blood loss threatens the integrity of the circulatory system, (2) to increase the oxygen-carrying capacity of the blood to prevent serious tissue hypoxia, (3) to supply deficient plasma factors in patients with certain coagulation abnormalities, (4) to remove deleterious materials from the blood (e.g., exchange transfusions in infants with erythroblastosis fetalis), and (5) to prime an artificial kidney or heart-lung machine.” (page 985)

The QB booklet attempts to belittle the evidence given by Linman in his book, by calling in apparently contradictory evidence from other medical sources. However, the booklet fails to reveal that in the immediate context, the book clearly states there is an efficient physiological mechanism to maintain adequate blood and oxygen supplies to vital organs when there is a reduction in blood volume or haemoglobin (*Hematology* page 985). The book continues, that in the light of all the facts:

“blood transfusions are needed in patients with acute haemorrhagic anaemia only when shock is present. Shock resulting from causes other than acute haemorrhage is better treated with plasma or other volume expanders.” (page 985)

Four rules are then given in the book regarding transfusion for anaemia.

The issue is not as simplistic as the QB booklet attempts to make out. If the issue is so complex that “medical authorities emphasise that at best they can say only what seems likely to happen,” (QB, page 37, emphasis in original) how much more in the dark is a biased publication produced by non-experts!

And how much *more* in the dark are those who only read what the biased publication is prepared to reveal to them!

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES,

Sept-Oct, 1975, pages 276, 281

(QB page 45, ref.64)

On page 45, the QB booklet cites this source to justify a figure of more than 200,000 cases of post-transfusion hepatitis annually in the United States

“Information provided by the government’s Center for Disease Control points to a conservative figure for hepatitis B cases as being 200,000 or more annually.” (QB page 45)

Unfortunately, nowhere in the entire article could such a statement be found, nor that this figure is given. This figure may be correct, and the article in the *Journal* does highlight the serious situation regarding viral hepatitis, but this seems to be misleading reporting.

The QB booklet does not reveal that the article in *Journal* points to four sources of hepatitis A and B

- Blood/blood product transfusion
- Raw shellfish ingestion
- Parenteral drug abuse
- Personal contact.

The article features “the rise in parenteral (i.e. not through the intestinal system) drug abuse in persons 15-29 years of age” as playing a major role in viral hepatitis (page 281).

The discovery in 1965 of the screening agent Australia antigen (HBs Ag) and its subsequent use has made the gathering of statistical analysis more accurate. For example:

“Previously it had been assumed that case fatality rates among hepatitis B (i.e. viral hepatitis) patients were at least ten times as high as those for hepatitis A. However, case fatality rates for patients in the surveillance program were essentially the same.” (*The American Journal of the Medical Sciences*, Sept-Oct, 1975, page 281)

There is no doubt that viral hepatitis is a serious major health concern, and that the transfusion of blood and blood products is one cause, but the WTS is not justified in claiming this article refers to 200,000 cases annually in the United States.

Further, the WTS is not frank and open, since it fails to tell its readers that transfusions are only one of four causes of the disease.

***ANAESTHESIA*, July 1968**

pages 395-6 (QB page 51, ref.82)

page 413 (QB page 52, ref.84)

page 416 (QB page 54, ref.95)

pages 418-9 (QB pages 53-4, ref.91)

On pages 50 to 54 of its QB booklet, the WTS quotes extensively from the British periodical *Anaesthesia* to answer several questions that it poses. On Page 50, the Watchtower Society’s QB booklet poses the Question:

“If a patient has lost a great deal of blood . . . is the view that there is no alternative to blood a reasonable one?”

The Society then cites the three reasons for a Blood Transfusion given by Professor Linman on page 985 in his book, *Hematology*:

- to augment total blood volume
- to enhance the oxygen-carrying capacity of the blood
- as a source of normal plasma constituents.

Over the following pages of its QB booklet, the WTS considers each of these reasons.

Contexts of Linman and Anaesthesia are different

In *Anaesthesia*, the articles are concerned with a particular condition - “difficult situations” (July 1968, page 395) ... “disaster situations” (page 413):

“A major disaster to a ‘Jumbo jet’ or an ‘Air-bus’ (which) might give rise to four or five hundred burn or trauma cases and, in a nuclear disaster or in an earthquake there might be many thousands of casualties, any of which might require fluid replacement amounting to 15 to 30 litres in 48 hours.” (page 413)

The book by Linman does not concern itself with that situation, and states:

“one cannot set forth guidelines for transfusion therapy applicable in all cases.” (Hematology page 985)

Anaesthesia concurs there is a lack of hard and fast rules:

“The experts differ as to the nature of the fluids to be used (in the severely burnt casualty) and, in certain situations the choice will naturally be dictated by the fluid which is available.” (July 1968, page 397)

The periodical explicitly states that, within the context of the passages cited by the WTS, it is considering unsophisticated surroundings in difficult situations, not those encountered in the controlled situation of a hospital (*Anaesthesia*, page 395).

‘First Reason’ for a blood transfusion: to augment total blood volume

Under the first reason for a Blood Transfusion, namely “to augment total blood volume”, page 51 of the QB booklet cites *Anaesthesia*, July 1968, pages 395, 396

“It is doubtful if (whole blood) is the fluid of choice for the initial treatment for the rapid transfusion of grossly hypovolaemic patients [those who have lost much blood]”

The passage from *Anaesthesia* cited by the WTS thus relates to:

- the “rapid transfusion” of whole blood
- for the “initial treatment”
- of those who have lost “much blood”.

Careful reading of the sentence in the original article shows that it continues, after only a semicolon, with a reference to Crocker, who had just been shown to be referring to “isolated and emergency situations” (ref. 12. -- Crocker, M.C. [1968]. *Fluids for emergency conditions. A review with special reference to disaster conditions. Anaesthesia*, 23, 413).

Further, the WTS fails to reveal that the context of the sentence refers to “peripheral stagnation”. The initial, primary objective of a transfusion under this circumstance is to increase the availability of fluid. Whole blood is not the most effective medium for achieving this under the conditions depicted by the article.

In addition, when page 51 of the QB booklet states that *Anaesthesia* speaks of “dramatic improvement”, it fails to tell its readers that the periodical is speaking specifically of one aspect only -- “peripheral circulation” (page 396).

Not only does the QB booklet fail to tell its readers the total context of the statements it quotes, but it fails to tell what else the periodical states within the context of the passage it cites. For example, when it speaks of burns, *Anaesthesia* states:

“The bulk of the fluid (lost) is plasma Certainly if the burn exceeds 25% of the surface area, blood should be given in addition to other fluids.” (page 394, emphasis supplied).

“In an emergency up to 2000ml (of Swedish type dextran) may be given if blood is not immediately available

“In summary the majority of routine replacement transfusions at elective surgery can be conducted with dextran in saline solution alone; in the emergency situation, where the loss is greater than 1500 to 2000ml, the initial use of dextran will effectively delay the need for whole blood until the casualty can be transported to a more sophisticated location where proper facilities for blood transfusion are available. Chronic anaemia or hypoproteinaemia will limit the amount of dextran that can be used without the addition of blood or plasma”. (page 396)

This last sentence forms the summary to the passage cited by the WTS at page 51 of its booklet. The periodical *Anaesthesia* continues:

“In an emergency any fluid is better than no fluid” (page 396)

Referring to “the severely burnt casualty”, the periodical advises:

“The experts differ as to the nature of the fluid to be used Where the burn exceeds 25%, blood is also required in the approximate proportion of 2 dextran to 1 blood.” (page 397)

The article in *Anaesthesia* concludes:

“In general, far more patients suffer from lack of fluid than from overtransfusion”. (page 409)

‘Second Reason’ for a transfusion: to enhance the oxygen-carrying capacity of the blood

Referring to the second reason for a Blood Transfusion, as given in the passage from Linman (“to enhance the oxygen-carrying capacity of the blood”), the WTS admits that:

“alternative solutions are not really ‘blood substitutes’. Why not? Because the hemoglobin of the red cells delivers oxygen throughout the body. Nonblood solutions do not contain this (hemoglobin).” (page 51)

“The medical profession prefers the term ‘plasma substitutes’ to ‘blood substitutes’ because none of these substitutes are able to supply the blood with oxygen as can blood.” (*Awake* July 22, 1965, page 11)

Then on pages 52 and 53 of its QB booklet, the WTS endeavours to belittle the oxygen-carrying benefits of the blood as given in a transfusion. It first discusses acceptable haemoglobin levels, following which it presents an argument to show that a transfusion is not effective in enhancing the blood’s oxygen-carrying capacity.

Haemoglobin levels

At page 52 of the QB booklet (reference 84), the WTS refers to the acceptable safe lower value of haemoglobin. The periodical *Anaesthesia* is quoted to provide a figure of “10.3 to 10.5 grams (per 100 ml)”. The booklet then attempts to belittle this figure through referring to several other sources. This is done to show that Jehovah’s Witnesses are able to tolerate “very low hemoglobin levels that formerly would have been considered as forbidden” (QB, pages 52-53). The WTS wishes to allay the fears of Witnesses, advising them not to be concerned if their haemoglobin level drops to a figure below that which has been determined as ‘normal’.

However, there was no need to attempt to belittle article in *Anaesthesia*, since it continues:

“In less favourable circumstances a much lower haemoglobin level must be accepted. This applies not only in an emergency where blood is not available but also in conditions where patients suffer from chronic diseases such as malnutrition, parasitic diseases, blood disorders or chronic renal failure.” (page 413)

Indeed, the article in *Anaesthesia* clearly states

“It is difficult to define the minimum acceptable haemoglobin level. Chronically anaemic patients (those with pernicious anaemia for example) survive, though somewhat disabled, with levels down to 4g per 100ml or less.” (page 414)

Anaesthesia continues, saying that in a test with cats, dogs and rabbits, the animals died when the haemoglobin level fell to 3g per 100ml (page 414). (Ringer solution containing haemoglobin was used to replace the blood).

The article in *Anaesthesia* concludes:

“It is certainly always worth while attempting to maintain life by using other fluids to maintain the circulatory volume in the hope that the necessary supply of blood will become available in due course.” (page 414)

There was no need for the WTS to attack the figure of 10.3 to 10.5 in *Anaesthesia*. A carefully balanced presentation of the context would have shown the full picture. The WTS appears unable to consider evidence from an objective view, but approaches the subject from the preconceived conclusion of advising Witnesses not to be concerned about their haemoglobin levels.

The WTS booklet plays with people’s lives by withholding facts and misrepresenting authorities. The booklet it has produced tells its readers only as much as the WTS wants them to know. The image is of a bull trampling a field of lilies, caring not who or what it bruises. The WTS may have a prejudiced opinion but this does not give it license to behave as it does.

Thus the booklet does not quote sentences as:

“Provided blood loss is kept to a minimum and *replaced* ... surgery is often tolerated surprisingly well.” (*Anaesthesia*, July 1968, page 414, emphasis supplied)

Oxygen-carrying capacity

On page 53 of its booklet, the WTS poses the question:

“Will a transfusion immediately enhance the blood’s oxygen-carrying capacity?”

The QB booklet then cites *Anaesthesia* (Reference 89) to show that the administration of blood does not “immediately enhance the blood’s oxygen-carrying capacity”.

“The haemoglobin of stored, citrated red cells is not fully available for the transfer of oxygen to the tissues for some 24 hours after transfusion. ... Rapid blood transfusion must therefore be regarded as a mere volume expander in the initial stages”

The WTS is using the periodical *Anaesthesia* to try and weaken the presentation by Linman’s book *Hematology*. The QB booklet correctly quotes Linman as saying blood enhances the oxygen-carrying capacity of the blood while *Anaesthesia* appears to deny this.

The statement in *Anaesthesia*, however, is simply stating that it takes some 24 hours for the haemoglobin to be FULLY available from transfused stored, citrated blood, and that RAPID transfusions must PRIMARILY (not completely) be regarded as a volume expander in the INITIAL stages.

The balance of the paragraph in *Anaesthesia*, which is not quoted by the QB booklet, reads:

“There is, therefore, much to be said for using other plasma expanders for blood replacement during elective operations to replace brisk moderate loss and to reserve whole blood for more leisurely administration in the post-operative period should this be necessary.” (*Anaesthesia* March 1975, page 150. The word “during” is emphasised in the original)

On this topic, *Anaesthesia* notes:

“In the absence of blood, fluid replacement will not increase oxygen-carrying capacity.” (July 1968, page 416)

‘Third Reason’ for a blood transfusion: as a source of normal plasma constituents

Without explicitly telling its readers that it is considering the third reason for a Blood Transfusion as given by Linman (“as a source of normal plasma constituents”), the WTS, on pages 53 and 54 of its QB booklet, discusses the merits of plasma expanders. The booklet asks:

“What are some of the nonblood fluids used as alternatives to blood transfusions? Are they being used effectively? What are their advantages?” (QB, page 53)

To the first question, the WTS answers with a list including saline solution, Ringer’s lactate, Dextran, and so on.

QB Reference 91

The WTS claims, on pages 53 and 54 of its QB booklet, that *Anaesthesia* (QB Reference 91) states:

“simple saline solution (0.9%) ... is chemically compatible with human blood.”

The cited reference (pages 418-9 of *Anaesthesia*) makes no such statement. What *Anaesthesia* DOES say is:

“0.9% normal saline is useful in small quantities, but ... the gross quantities which may be required for burn therapy ... may lead to excessive serum chloride levels. In addition the solution has, of course, no calcium or potassium, both of which may become low in large volume transfusions.” (page 419, emphasis in original)

“Excessive use of salt solutions can lead to an overload of the circulatory and tissue spaces with resultant oedema.” (page 417)

QB Reference 95

The passage from *Anaesthesia* which is given on page 54 of the QB booklet as Reference 95 (July 1968, page 416), continues with:

“In the absence of blood, fluid replacement will not increase oxygen-carrying capacity.” (*Anaesthesia* July 1968, page 416)

It must be noted that, in the context, these statements in *Anaesthesia* all refer to a very limited application – the very initial stage. Subsequent requirements may fully warrant the use of blood or blood products, says the article:

“In the initial period Ringer lactate solution is probably the most useful generally available or locally manufacturable fluid. ... Once the immediate restorative

measures have been taken whole blood and colloids must be given when they are or become available.” (*Anaesthesia* July 1968, page 421)

The article in *Anaesthesia* also notes some interesting facts regarding Dextran, which are inert plasma substitutes. (There are no substitutes for blood. These products act as expanders, increasing the mobility of the red cells, thereby increasing the amount of oxygen available to the body).

“The original high molecular weight dextrans will hold fluid in the vascular compartment for 24 to 48 hours, but the lower molecular weight dextrans are more rapidly excreted and hence expand the vascular space for shorter periods. ...

“Dextrans should not be used in grossly dehydrated persons. ...

“In the absence of blood, dextrans are not usually given in quantities exceeding 1500ml in the adult. Transfusions exceeding 1 ml/kg per minute ... tend to produce bleeding tendencies.

“Dextrans are relatively expensive compared with saline solutions.” (*Anaesthesia* July 1968, page 421)

ANNALS OF THE NEW YORK ACADEMY OF SCIENCES,

January 20, 1975, page 191

(QB page 45, ref. 63)

On page 45, the QB booklet quotes this article from *Annals of the New York Academy of Sciences* to give a figure of “1,500 to 3,000 deaths” annually from post transfusion hepatitis (reference 63).

To be correct, the figure is not given as “1,500 to 3,000” anywhere in the article. The actual wording is “about 1,500”. This is not to say that 1,500 deaths are not a problem. It is. But when there is no need to be dishonest, why do it? Does this indicate an underlying unhealthy attitude?

The succeeding reference in the QB booklet (reference number 64: *The American Journal of the Medical Sciences*) supposedly refers to a figure of 200,000 cases. However that article says no such thing. When these instances are coupled, there must be a serious doubt about the objectivity, balance and honesty of the WTS and its QB booklet.

The article in *The American Journal of the Medical Sciences* addresses itself to the problem of Blood-Transmitted Hepatitis, which is significant in countries dependent upon commercial donors, such as the United States. In considering this, the article in *The American Journal of the Medical Sciences* comments on:

“the dramatic reduction in (the) incidence of post-transfusion hepatitis that could be achieved by use of volunteer sources of donor blood.” (*Annals of the New York Academy of Sciences*, January 20, 1975, page 194)

One case study of commercially supplied blood is reported as presenting:

“4.1 hepatitis cases/100 patients transfused; in striking contrast, those transfused with volunteer blood had an attack rate of only 0.7/100 patients.” (*Annals of the New York Academy of Sciences*, January 20, 1975, page 194)

In another study there was a reduction from 15 per 1,000 patients to 3.7 per 1,000. (*Annals of the New York Academy of Sciences*, January 20, 1975, page 195)

MAYO CLINIC PROCEEDINGS, November 1976, page 725

(QB page 49, footnote, ref. 77)

At the footnote on page 49, the QB booklet cites this article appearing in *Mayo Clinic Proceedings* to show that a person’s red cell production may be built up by iron therapy:

“By means of iron therapy, red-cell production can be increased to two to four times the normal rate.” (QB page 49 footnote; reference to: *Mayo Clinic Proceedings*, Nov. 1976, page 725)

To be precise, the figures given in the article are “two to three times normal” with oral iron administration, and “three to four times” the normal during the first two weeks of parenteral (that is, by injection) iron therapy, although it returns to two to three times thereafter (*Mayo Clinic Proceedings*, Nov. 1976, page 725)

“However the dangers of parenteral iron make this form of iron supplementation undesirable.” (*Mayo Clinic Proceedings* November 1976, page 725)

The QB booklet omitted to mention that this increase occurred while the patient was:

“(being) bled 500 to 1000 ml/week ... since marrow stimulation (the red cells are produced in the marrow) does not begin until the surgical loss occurs.” (*Mayo Clinic Proceedings*, November 1976, page 725)

Furthermore, the sentence in *Mayo Clinic Proceedings* that is referred to by the QB booklet specifically states:

“With oral iron administration, the marrow can increase production to two to three times normal IN RESPONSE TO BLOOD LOSS.” (*Mayo Clinic Proceedings*, November 1976, page 725, emphasis supplied)

In addition, the article says:

“These results imply additional benefits of pre-operative autologous transfusion.” (*Mayo Clinic Proceedings*, November 1976, page 725)

The article is thus stating that there are more advantages when the patient receives transfusions of his own stored blood. This is the thrust of the section of the article that the QB booklet is referring to. It is improper for the QB booklet to suggest it was simply a matter of “iron therapy”. The technique included bleeding the patient and involved the principle of autologous transfusion of the patient’s blood.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,

April 12, 1976, page 1611

(QB page 40, ref. 49)

At page 40, the QB booklet quotes this article from *The Journal of the American Medical Associations* (JAMA) in the context that blood is extremely complex tissue that varies from person to person, which has a significant bearing on blood transfusion.

Rather than this being an argument against the principle of blood transfusion, it is presented by the article in JAMA as an argument for the principle of autologous transfusion,

“that is, blood (is) removed from an individual and subsequently reinfused into that same individual.” (JAMA April 12, 1976, page 1611)

The whole intent of this article in JAMA is to demonstrate that most of the dangers of receiving blood from another person (homologous transfusion) are eliminated by collecting the patient’s own blood before any elective surgery is undertaken and using that blood exclusively for the patient’s needs, or along with blood from other donors. When ferrous gluconate is given before blood is drawn (phlebotomy) there is a negligible drop of haemoglobin, even if up to four units of blood are taken in a three-week period.

Statements from these reputable sources show their care and responsibility. They normally provide solutions to an observed problem. It is possible to imagine that a non-scientific mind, perhaps one that is quite distrustful of science and scientists, would demonstrate unquestioning reliance on the simplistic, although quite erroneous and mischievous, utterances coming to them from God’s “sole representative on this earth”.

The statement from JAMA quoted in the QB booklet (“that there is less than 1 in 100,000 chance” of having identical blood) is not as significant as the QB booklet wishes to make out. The JAMA article continues, stating that when this factor is combined with the difficulty of screening diseases and with human error:

“4% to 6% of patients receiving transfusions have some type of serious adverse reaction, most of which can be eliminated by the use of autologous blood.” (JAMA, April 12, 1976, page 1611)

The JAMA article concludes:

“It is the patient’s right to know and the physician’s responsibility to inform him that safe blood for transfusion is available from a readily accessible source.” (JAMA April 12, 1976, page 1612)

It is the WTS’s responsibility to inform its readers likewise.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
March 29, 1971, page 2077
(QB page 54, ref.92)

This article from JAMA is cited by the QB booklet (page 54, reference 92) as describing the “successful” treatment with Ringer’s Lactate of patients who “have lost up to 66 per cent of the fluid volume of their blood” (QB page 54). All thirteen patients discussed in the JAMA article were Jehovah’s Witnesses. The “successful” treatment resulted in three of the thirteen dying -- a mortality rate of 23%. (JAMA March 29, 1971, page 2080)

“Their demise appeared to reflect the nature of their disease, the trauma of the surgical procedure, and the response to the fluid resuscitative regimen.” (JAMA March 29, 1971, page 2080)

Additionally, the average hospital stay was prolonged 3-4 days (JAMA March 29, 1971, Pages 2077, 2082 Table 2). It is not correct for the QB booklet to state treatment was “successful” for patients who had lost “up to 66 per cent of fluid volume”, since the one patient who lost that amount died two days after her operation. The other women who died lost about 43% of blood volume each.

It must not be construed that this success rate may be achieved normally, since the procedures described “in many ways, extremes of clinical practice.” (JAMA March 29, 1971, page 2077)

Other interesting information cited in the article include:

1. Three to five times the amount of the blood lost was replaced, with an average of 16% retained in the circulatory system.
2. 20% to 60% of blood volume loss was replenished because of the large volume of liquid administered.
3. Most of the administered fluid went to spaces outside the blood vessels.
4. Replenishment of red blood cells was “sluggish, regardless of various hemanitic preparations employed.” (JAMA March 29, 1971, page 2082)

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION,
February 5, 1968, Pages 399, 401
(QB: page 55, ref. 96; page 57, ref. 103)

Both references to this article from JAMA that appear in the QB booklet (page 55, reference 96 and page 57, reference 103), appear in the context of the use of non-blood fluids in the conduct of “all major types of operation” (QB page 54). However, the JAMA article states that all operations were not conducted; for example, there was no open-heart surgery (JAMA February 5, 1968, page 400).

There is no doubt non-blood solutions are under-prescribed and under-used. This does not mean, however, that it is possible to eliminate the need for blood in many cases. Often it is the sole viable product. Of the 100 patients under review in this JAMA article, “four ... required subsequent transfusions postoperatively” (JAMA March 29, 1971, page 399).

The JAMA article does not give unqualified support for the elimination of blood. For example, children less than 15 years old were not represented (because blood losses of more than 1 litre represented a larger proportionate blood loss) and all had a hemacrit reading of 30% or more. (In the JAMA article of March 29, 1971, page 2080 (QB reference 92, discussed previously), the patients had hemacrit readings down to 15%.) The greatest blood loss group ranged from 1000 ml to 1500 ml.

There were 22 complications, “ranging from mild to severe”, and one patient died (JAMA February 5, 1968, page 400). In fairness, it must be reported that the article showed the patients’ recoveries were normal and hospitalisation was not extended by the regimen.

Undoubtedly, plasma substitutes (there are no “blood” substitutes) and expanders are the favoured form of fluid replacement in some circumstances, many in which doctors are presently using blood. But it does not follow that blood is thereby excluded as a viable and at times the sole means of treatment. The only valid conclusion that may be drawn is that the needless prescription of blood could be reduced, reserving it for those tasks where it is the only product that may be called upon.

The WTS's Handling

As should be expected, the WTS's mishandling of the medical issues is consistent with its method of handling all other issues. Whether in its interpretation of Scripture, its reading of history or its relaying of plain facts, the WTS's path to the conclusion is twisted and strewn with misinformation and misinterpretation. It considers the ends as paramount. The WTS's prejudices colour its presentation. The predetermined conclusion prevented fair, open and honest handling of the evidences.

Playing on fears, prejudices and biases, the WTS pays scant regard for proper reasoning. It has its eyes set on the conclusion before it conducts its enquiry. In truth, the opposite process must be adopted, wherein serious unfettered enquiry leads to the conclusion, no matter how distasteful or unforeseen that may be.

Little wonder the WTS consistently and strongly discourages its followers from conducting their own study or investigation. It has much to fear. In the end, this speaks volumes on their calls for integrity in all things, for honesty in all dealings.

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doug_mason1940@yahoo.com.au