



Will “no blood” kill Jehovah Witnesses?

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ABSTRACT

A 46-year-old Indonesian woman presented with signs and symptoms suggestive of an ovarian tumour and was advised to have surgery with exploratory laparotomy and removal of the mass. She agreed but refused blood transfusion any time in the course of her treatment or procedure, as she was a Jehovah Witness. As there was a high risk of intraoperative haemorrhage, steps were taken to reduce any consequent complications due to the surgery. The ethical conflict is between respecting patient autonomy and compromising standards of care, arising from the refusal of a standard therapy. The latest developments in the blood transfusion doctrine policy for the Jehovah Witnesses are also discussed in this case study.

Keywords: blood transfusion, ethical conflict, Jehovah Witness, patient autonomy

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INTRODUCTION

The Jehovah Witness Christian Movement was founded in Northeastern USA in the late 1870s, with more than five million members in over 230 countries⁽¹⁾. Their fundamental belief since 1945 was the rejection of blood transfusions and certain other blood products, such as packed red and white blood cells, platelets and plasma, based on their interpretation and emphasis of certain passages in the Old Testament^(2,3): “*And whatsoever man there be among you, that eateth any manner of blood; I will even set my face against that soul that eateth blood, and will cut him off from among his people (Levitus 17:10-14)*”

“*Only flesh with its soul – its blood you must not eat (Genesis 9:4)*”

“*Keep abstaining from... blood and from things associated with such... (Acts 15:29)*”

Therefore, one of the fundamental beliefs is

that blood transfusion is equated with the “eating of blood” and if blood is transfused, it could lead to elimination of any hope for eternal life. Even the use of one’s own blood, collected or deposited in a blood bank as preparation for an impending surgical procedure, is not allowed⁽⁴⁾. Jehovah Witnesses who accepted blood would be subjected to disfellowship and excommunication from the church, followed by enforced shunning and social isolation by their own family members, relatives and friends⁽⁵⁾. This rule acts as a strong deterrent for Jehovah Witnesses to leave the religion or act against its teachings. It was estimated that the Watchtower (the headquarter church group overseeing Jehovah Witnesses) imposes disfellowships on some 40,000 members or approximately 1% of its memberships annually⁽⁶⁾. The disfellowship is permanent, unless members show very strong repentance for months or years.

Interestingly, there was a public agreement made in March 1998 between the Watchtower and the Bulgarian government at the European Commission of Human Rights, stating that its members now have the autonomy to receive blood transfusions without any control or interference from the Association⁽⁶⁾. This change of policy was also announced officially by the Watchtower in June 2000 stating that it no longer excommunicates members who receive blood transfusions⁽⁷⁻⁹⁾: “*if a baptized member of the faith wilfully and without regret accepts blood transfusions, he indicates by his own actions that he no longer wishes to be one of Jehovah’s Witnesses. The individual revokes his own membership by his own actions, rather than the congregation initiating this step⁽¹⁰⁾*”. This also reflects a similar outcome whereby members are no longer part of the religion and unless he or she repents, subsequent acceptance as a Jehovah Witness is still possible.

Besides this change, it seems that the use of fractions of any of the primary components of blood (such as red and white blood cells, platelets and plasma), or the so-called secondary components (such as albumin, immunoglobulins, clotting factors,

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interferons and interleukins⁽⁸⁾) are now acceptable. The decision lies entirely with the member who must make a prudent choice: “*when it comes to fractions of any of the primary components, each Christian, after careful and prayerful mediation, must conscientiously decide for himself⁽¹¹⁾*”. Other non-blood replacement fluids are also acceptable.

As some studies⁽⁷⁾ quoted that most Jehovah Witnesses might not know the exact classification of acceptable and unacceptable blood products, especially when most were baptised into the religion since young as “minors”, it would be good if the doctors discuss with the patients the alternatives to the use of blood or blood products, such as the secondary components of blood, autotransfusion or autologous transfusion, and let the patients decide on the usage of such blood alternatives.

Because of the many diverse views on blood transfusions outlined above, a group of dissident Jehovah Witnesses who are currently petitioning for a reform in the Watchtower Society’s current policy of banning certain types of blood transfusions, the Associated Jehovah’s Witnesses for Reform on Blood, published a physician’s guide on *Jehovah’s Witnesses and Blood⁽¹²⁾* to develop an approach to determine the individual’s understanding of the blood policy, as well as to provide the risk versus benefit analysis of blood transfusions, and their degree of commitment.

In Singapore’s context, the Singapore Congregation of Jehovah Witnesses was deregistered and banned since 1972, as it was perceived that the Congregation was detrimental to public welfare and order, since the members refuse to perform military service, salute the flag, and pledge loyalty to the nation. The public practice or promulgation of their doctrines and all their written materials were made unlawful. The estimated number of Jehovah Witnesses in Singapore was 2,000⁽¹³⁾. Other countries which also banned Jehovah Witnesses include Russia⁽¹⁴⁾ and Syria⁽¹⁵⁾. In this case study, we present a Jehovah Witness patient who presented with an ovarian tumour but refused blood transfusion.

CASE STUDY

A 46-year-old single Indonesian woman presented to the hospital with a two-month history of lower abdominal pain and swelling. On examination, she was noted to have a large immobile mass extending up to the umbilicus. There was no ascites. Rectal examination also showed that the mass was fixed in the pelvis and pouch of Douglas. Ultrasonography showed a large septated cystic mass extending from deep in the pelvis up to the level of the umbilicus,

with some solid and papillary areas, which was highly suggestive of malignancy. This was confirmed on computed tomography of the abdomen, which also showed a right hydroureter and hydronephrosis from compression by the mass. Tumour marker CA125 was raised at 715 IU/ml. The preliminary diagnosis was ovarian cancer.

She had two treatment options – either conservative treatment or surgery with exploratory laparotomy and removal of the mass. The latter was preferred by the surgeon as histology could be obtained, debulking could be carried out for optimal response to postoperative adjuvant therapy, and the urinary compression could be relieved. The patient was in favour of the surgical option. However, the patient said that she was a Jehovah Witness and was absolutely and unequivocally opposed to having blood transfusion, any time before, during or after the surgery. The retroperitoneal location of the tumour coupled with its immobility made excessive intraoperative bleeding a likely complication. Even after knowing the risks, she firmly expressed that she would carry on with the surgery but would “rather die than to have any blood transfusion”. Hence, she signed a medical directive (Fig. 1) to absolve all doctors and the hospital from any liabilities should the outcome be adverse because of her refusal to have blood transfusion.

The patient was then given haematinics (i.e. ferrous fumarate and folate) and erythropoietin for a period of two weeks prior to the operation to optimise her haematological status. Thereafter, the surgeon proceeded with an exploratory laparotomy, total hysterectomy and bilateral salpingo-oophorectomy. An extended midline incision was used to allow good access to the mass, blood vessels were clamped and at times doubly sutured, so as to reduce any excessive and unnecessary blood loss. Intraoperatively, a large cystic mass (10.5 cm × 9.0 cm × 9.0 cm) that was retroperitoneal in position, extending up to the umbilicus, an enlarged uterus with multiple fibroids (17.0 cm × 14.0 cm × 8.0 cm), and a dilated right ureter were found. The para-aortic and pelvic nodes were not enlarged. Surprisingly, the ovaries were normal and separate from the mass, which seemed to originate from the uterus. Fortunately, the intraoperative blood loss was relatively minimal at about 600 ml.

Histologically, a moderately-differentiated endometrioid adenocarcinoma arising in an adenomyoma (Fig. 2) was found. Peritoneal washings and omental biopsy were negative for malignancy. She was diagnosed to have Stage 1C uterine cancer T1cNoMo with lymphovascular invasion. She

ADVANCE MEDICAL DIRECTIVE/RELEASE

I, _____, make this advance directive as a formal statement of my wishes. These instructions reflect my resolute decision.

I direct that *no blood transfusions* (whole blood, red cells, white cells, platelets, or blood plasma) be given to me under any circumstances, even if physicians deem such necessary to preserve my life or health. I will accept nonblood volume expanders (such as dextran, saline or Ringer's solution, or hetastarch) and other nonblood management.

This legal directive is an exercise of my right to accept or to refuse medical treatment in accord with my deeply held values and convictions. I am one of Jehovah's Witnesses, and I make this directive out of obedience to commands in the Bible, such as: "Keep abstaining . . . from blood." (Acts 15:28, 29) This is, and has been, my unwavering religious stand for _____ years. I am _____ years old.

I also know that there are various dangers associated with blood transfusions. So I have decided to avoid such dangers and, instead, to accept whatever risks may seem to be involved in my choice of alternative nonblood management.

I release physicians, anesthesiologists, and hospitals and their personnel from liability for any damages that might be caused by my refusal of blood, despite their otherwise competent care.

I authorize the person(s) named on the reverse to see that my instructions set forth in this directive are upheld and to answer any questions about my absolute refusal of blood.

Signature

Address

Date

Telephone

Witness

Witness

Printed in U.S.A.

Fig. 1 Sample of advance directive signed by Jehovah Witnesses to absolve doctors and hospitals of legal liability from their refusal of blood transfusion. Adapted from Official Website of Associated Jehovah Witnesses for Reform on Blood. In: New Light on Blood [online]. Available at: www.ajwrb.org/watchtower/card.shtml.

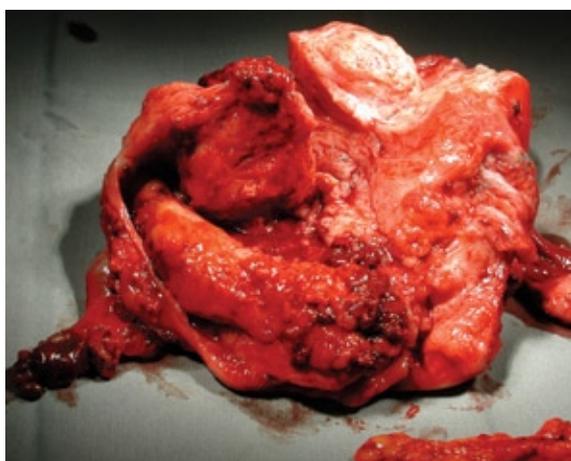


Fig. 2 Specimen photograph of the moderately differentiated endometrioid adenocarcinoma arising in an adenomyoma.

therefore required chemoradiation, in view of the large tumour size and presence of lymphovascular invasion. To date, she has completed six cycles of postoperative adjuvant chemotherapy and is recovering well.

DISCUSSION

The management of Jehovah Witnesses in our healthcare institutions, especially when these patients reject the administration of blood transfusion, has never been previously published in local medical journals. This very standard therapy is deemed necessary for the success of any major surgical procedures. The management of Jehovah Witness patients presents various moral, ethical, legal and medical concerns.

Hence, this was the reason that this case study was referred to the National Medical Ethics Committee for deliberation and advice, especially when such refusal of standard therapy could result in adverse outcomes, such as death. Therefore, it is timely to discuss such a case study to outline the ethical, legal and medical principles behind the management of Jehovah Witnesses if our healthcare professionals should experience another similar case in future. Such principles could also come in useful for other comparable cases, where standard therapies could be rejected by competent patients, even after proper communication and informed consent.

ETHICAL AND LEGAL CONCERNS

Informed Consent

Consent is the central pillar of patient autonomy and has to be obtained before any procedure could be carried out. For consent to be deemed as valid, doctors have to ensure that the consent must be related to the treatment, the patients should be fully informed, and that it should be obtained voluntarily and not through any fraud or misrepresentation⁽¹⁶⁾. Once the patients understand what the clinical management entails, they would have the right to decide whether to agree or disagree with the treatment, notwithstanding the reasons for making such a choice might be rational, irrational, unknown or non-existent⁽¹⁷⁾.

Doctors should therefore adequately understand the Jehovah Witness patients, especially with regard to their refusal of blood transfusion, since they fear the disfellowship and excommunication by their fellow members, if they do accept blood. Disobeying their religion by accepting blood might compromise their spiritual life, making them feel meaningless in life, which could be worse than death itself. Hence, such strong and innate fears could have compromised the freedom and autonomy of the patients in rationally making an informed decision. Some reports^(6,18,19) even stated a possible element of “psychological coercion” when they refuse blood transfusions. To ensure a fully informed, voluntary and conscientious consent and to minimise the possibility of “psychological coercion” from the religion or their family members, doctors treating this group of patients should first be aware of the religion’s policies. Therefore, the doctors should be aware of the evolution in the Watchtower policies over the last few years regarding blood transfusions outlined above, so that the patients could be properly educated to make a more informed decision.

Nevertheless, if doctors should decide to proceed with treating these patients, it is their responsibility to ensure that the patients are fully informed of

the potential benefits and risks of the operation (including possible excessive blood loss), full disclosure of the mortality/morbidity risks or serious permanent injury in the event of blood loss and refusal of blood transfusion, limitations of non-blood volume replacement products, as well as alternative courses of treatment. Although there are no officially published statistics, it is estimated that about 1,000 Jehovah Witnesses die each year through abstaining from blood transfusions⁽²⁰⁾, with premature deaths^(7,8). On the other hand, there are also studies done which showed that “the risk of surgery in patients of the Jehovah Witness group has not been substantially higher than for others”⁽⁹⁾, with good postoperative recovery. Similarly, there were also reported cases where such patients survived major surgical procedures without any blood transfusions⁽²¹⁾.

Doctors should also ensure that the patients sign a validated advance directive (Fig. 1) that the patients absolve the team and hospital of the risks associated with the refusal of blood and if complications ensue with this refusal. If there are any doubts about the patient autonomy, then referral to an ethics committee or even the courts will be necessary. The attending doctor, in this case, should not be the final arbiter in case of refusal. This whole process of consultation, discussion and decision of management should be properly documented in the medical case notes by the doctor, preferably in the presence of a witness.

Competency of Patients

In order to exercise patient autonomy, the doctors have to assess that the patients are of sound mind and fully competent in understanding the provided information, in order to make their own decisions. If so, then the patients would have the legal right to consent or refuse treatment for their own reasons, regardless of its reasonableness and even if the refusal should result in adverse outcomes, such as death. This is elaborated in a landmark case confirming a competent adult’s right to refuse treatment in *Schloendorff versus Society of New York Hospital*⁽⁴⁾ in 1914, superceding all societal rights of life preservation and patients’ best interests: “Every human being of adult years and sound mind has a right to determine what shall be done with his own body”. Claims of lack of competency have to be proven by formal testing from clinical experts, such as psychiatrists.

There were concerns raised that the Jehovah Witness patients might be “suicidal” by refusing any blood transfusions, which potentially could result in death, and therefore, they should be rendered incompetent to make any decisions. However, this

would not be substantiated, as the patients actually do not suffer from any terminal illnesses and would have a good prospect of recovery with medical treatment. In actual fact, their religion does not condone suicide (similar to how it forbids transfusion)⁽⁴⁾ and thus, such refusal of blood should not be considered as a form of “voluntary/active euthanasia” by the doctor.

Since the common law states that a competent adult person may refuse medical treatment, including blood transfusion, giving Jehovah Witnesses blood transfusions in the absence of consent and against their deeply-respected religious beliefs constitute the tort of battery and the crime of causing hurt or using criminal force. There have already been instances^(22,23) where doctors were held liable for such actions overseas, in view that the doctor violated the patient’s civil rights and interfered with the competent patient’s ability to make his or her own decisions. Fortunately, there has not been any record of such legal suits in Singapore.

On the other hand, there have been instances where the Courts ruled in favour for the preservation of life with the decision for rejection of blood overruled, when there were elements of doubt. For example, in *Re T (Adult: Refusal of Medical Treatment)*⁽¹⁷⁾, a 20-year-old ex-Jehovah Witness female patient, who was 34 weeks pregnant, suffered serious injuries in a motor accident and had to undergo a caesarian section but refused blood transfusion following occasions upon advice, when she was alone with her mother who was a devout Jehovah Witness. Unfortunately, she had a stillbirth and lapsed into a coma from internal bleeding. The Court of Appeal finally agreed to the father’s plea for blood transfusion, as they felt that she did not make an autonomous decision regarding her rejection of blood administration, possibly due to her mother’s indirect pressure as a devout Jehovah Witness and that she was ill-advised concerning the limitations for the use of alternatives to whole blood.

In addition, it is worthy to note that there might be instances where the competencies of individuals could be controversial, for example, in medically-incapacitated patients and children. In these cases, the decision to treat will be based on necessity, implied consent or patient’s best interests⁽²⁴⁾. For example, for children, some Australian states have legislations that allow blood transfusions to be given without parental consent if the child is in danger without the treatment⁽²⁵⁾. The aim was to protect the lives and health of children by ensuring they receive necessary emergency treatment, regardless of parental consent.

Another case has been reported in *Re S (Medical Treatment)* (1993)⁽¹⁷⁾ where a 4-year-old child

suffering from R-cell leukaemia was ordered by the Courts to undergo transfusion of blood products during his intensive chemotherapy to increase the prospects of a successful treatment. This was despite parental objections of blood transfusion because of their Jehovah Witnesses’ faith and concerns for the safety of blood products. The Courts’ decision was again based on the child’s best interests and welfare for the best chance in prolonging his life, rather than the parents’ arguments that the parent-child relationship might suffer from the “ungodly act” of accepting blood products. It is important to note that the common law bestows parental rights of providing adequate continuing care for their children in their best interests and doctors could overrule parental objections in view of the necessity in providing the best medical care or in preventing unnecessary suffering for the child [such as the case of *Re C (A Minor) (Medical Treatment)*⁽¹⁷⁾, where doctors felt that continued ventilation for a 16-month-old baby with spinal muscular atrophy was futile by prolonging her suffering for a few more days].

In Singapore’s context, all minors (defined as age under 21 years) should obtain parental consent before any medical procedures could be carried out. Nevertheless, if the doctors have certified that the child is truly Gillick-competent, i.e. has reached a maturity level to understand the full implications and hence, able to decide whether to provide or withhold consent to a medical treatment, then the doctors could provide the treatment without obtaining parental consent. But if the doctors feel that the child is not Gillick-competent and lacks the insight into the dying process or the distress the family could suffer from witnessing his deterioration [such as *Re E (A Minor) (1990)*⁽¹⁷⁾, a 15-year-old Jehovah Witness boy, who shared his parent’s religious beliefs and refused blood product transfusion when he was seriously ill with leukaemia and needed chemotherapy, was ordered by the Courts to undergo blood transfusion], then the Courts act in the child’s best interests to protect them from decisions that could jeopardise their health and life.

As these issues could potentially be controversial, it is therefore best for the doctors to obtain the views of the hospital’s ethics committee, the institution’s legal advisors, as well as the Courts, before proceeding to provide any medical treatment. As for mentally-incompetent adults, it is paramount that the doctors apply through the institution’s legal advisors to the Committee of Persons under the Mental Disorders and Treatment Act for the decision to initiate any medical treatment. At any one time, it should be noted that patients do have the right to change their minds to withdraw consent to the treatment and that should be

respected, if the decisions were made of their own free will and without any coercion. Therefore, the doctors should abide and respect the patients' wishes and not act otherwise as it would be unlawful to do so, even if the religious entity may be banned in Singapore. Hence, doctors should not allow their emotional disagreement with the patients' decisions to cloud their judgment in answering the question whether the patients are competent to make decisions⁽²⁶⁾.

Medical Confidentiality

With the 2000 statement from the Watchtower that members revoke their own fellowship by their own actions rather than the Church initiating the disfellowship, some members might decide to keep their blood transfusion highly confidential so that they would not get shunned and ostracised by their own Church. In such cases, medical confidentiality becomes even more important, to ensure that doctors keep the medical treatment of Jehovah Witnesses in the hospitals discrete, so that disassociation from the church are less likely. For example, any Jehovah Witnesses who accepted blood transfusion should receive them outside visiting hours to maintain patient confidentiality. Medical records should be kept securely. Any medical information should only be known to the patients and the medical team but not to the congregation, without any prior consent from the patients. The healthcare professionals within the medical team managing the patient should also understand that information disclosed to them should also be bound by confidence. This would indicate that the patients would have almost full control over whether they disassociate from the religion by their treatment decisions being known to the congregation. The maintenance of patient-doctor confidentiality is crucial in ensuring the effectiveness of superior medical care.

Further Consultations

The doctors should encourage the patients to seek the advice of their own church officials/elders for guidance and to clarify the use of blood or blood derivatives, resulting from the latest evolution of the Watchtower's policy on blood transfusion. Depending on the patients' perception on their family beliefs and support, the family members could be involved in the decision-making process, as the patients' release of the doctors and hospital from liability through signing of the medical directive do not exclude others (such as the family members) from prosecuting either one or both parties in the event of any disagreement. In cases where patients are unable to make their own decisions, it is important to hold further ethical

consultations with the patients or family members, whenever appropriate, to ensure that the optimal decision is made in the patients' best interests.

Doctors' Decision To Treat

On the other hand, it is also the right of the doctors not to engage in what they consider as a compromise on the standards of care without blood. Many healthcare institutions have such policies that allow such practices⁽²⁷⁾. The ultimate decision on whether to treat the patients should thus rest with the doctors. The major dilemmas of the doctors would be to assess carefully the medical indications for surgery, surgical technique to reduce blood loss, risk of bleeding and its associated complications, vis-à-vis the absence of blood replacement.

If the doctors ultimately feel that the refusal to blood transfusion will make the procedure harder and do not wish to take any risks of procedure without the blood transfusion after weighing the benefits of the procedure to cure the patient's primary condition, they should not be compelled to perform the procedure against their conscience and should have the right to be a conscientious objector (similar to the other ethically-problematic medical procedures, such as termination of pregnancy and fertility treatment). In such circumstances, the duty of care should include referring the patient expeditiously for a second opinion with another surgeon who would operate without blood and/or explore other possible treatment options, before withdrawing themselves totally from the clinical management of the case. It is also advisable that the hospital's ethics committee reviews the case and seeks opinion from other clinical experts and relevant evidence-based clinical guidelines whether the procedure should still proceed.

In the Event of Emergencies

In certain cases, some might carry a "blood card", a sort of advance directive brought along by the Jehovah Witnesses to indicate their informed refusal of blood in the event of an emergency. However, there were doubts to the validity of such cards, since it was unclear whether the patients were adequately and objectively informed about the benefits and risks of blood transfusion when they signed such cards or if they were under obligations to comply with their conviction as Jehovah Witnesses due to coerciveness and peer pressure from the religion.

Nevertheless, there was a case in 1988 (*Malette versus Shulman*)⁽¹⁷⁾ where an unconscious young Canadian Jehovah Witness woman carrying a similar blood card underwent a blood transfusion and the Courts held that the doctor who administered the

blood transfusion committed an offence of battery. The Courts felt that the woman was clear in her beliefs by ensuring that her standpoint was made known in all circumstances via the blood card she was carrying. The Courts did not accept the disagreement that there were no opportunities for the decision of blood refusal to be reiterated or reconsidered under the true circumstances during the actual clinical management. In such cases of uncertainties when patients are unconscious and mentally-incompetent to make any decisions, it is always the best practice for the doctors to seek guidance from the hospital's ethics committee, the legal advisors or make an urgent *ex parte* application to the Courts for the appropriate action to be taken.

On the other hand, in times of emergencies where no blood card is present and when there is insufficient time for any discussion and/or no discussion is available, then the doctors should administer blood as early as possible to preserve the patient's life or health in his/her best interest and in accordance with responsible medical practice. This is the case in the Health Care Consent Act⁽¹⁶⁾ which states that "a treatment may be given without consent in an emergency" if in the opinion of the physician, there is no means of communication with the patient and that the delay might place the patient in sustaining serious bodily harm. One article even quoted that the physician would rather be sued for saving the patient's life if he were to be sued either for treating or not treating the patient with blood⁽¹⁹⁾.

MEDICAL CONCERNS

During the encounter with Jehovah Witnesses refusing blood transfusion for any procedure, the doctors should decide whether there are any other alternatives to the surgery such as further evaluation of the extent of disease, biopsy for histology, and chemotherapy or radiotherapy following histological confirmation of malignancy. If there are no other alternatives and the doctor decides to proceed with the procedure, then it is essential that the doctor optimises the patient's condition to minimise any possible surgical risks.

Preoperatively, the patient's haemoglobin levels should be optimised by haematinics and recombinant human erythropoietin, and the patient's bleeding and clotting times checked and normalised. Any drugs with an effect on coagulation should also be discontinued before surgery. The most experienced surgeons, assistants, anaesthetists and nursing staff should be recruited to perform the case. The doctor-in-charge should then ensure that he communicates

clearly with the entire team involved, and obtain their consensus and cooperation to proceed with the operation without blood, so as to minimise any future conflicts.

During the operation, the doctors should remind the anaesthetists of the special circumstances in this case, so that hypotensive anaesthesia, vasoconstrictors or deliberate hypothermia could be used to reduce any blood loss. Crystalloid solutions (such as normal saline and dextrose solutions) should be used for any non-blood volume replacement, although it has its limitations of rapid distribution of the fluid into the interstitial space, resulting in a depleted intravascular volume, as well as inadequate tissue oxygenation from the decrease in arterial oxygen carrying content in fluids compared to blood. Colloids, such as albumin, could also be given but they might be associated with coagulopathies and therefore be unacceptable to some Jehovah Witness patients since it is derived from human plasma⁽⁴⁾. Other blood saving measures, such as Novo 7 (a recombinant haemostatic agent) administration and cell extractor, should be made available in the operating theatre in cases of excessive bleeding, even though this too might lead to coagulation disturbances and haemolytic reactions in some cases. Special surgical techniques to secure haemostasis and minimise operative blood loss should also be utilised.

The rapid advance of technology has also allowed some hospitals to offer so-called "bloodless surgery" to their patients. These bloodless surgical techniques vary, depending on the type of operation, but can include efficient heart-lung bypass machines that circulate a patient's blood during surgery; using high-tech scalpels that clot the blood as they cut tissue, or freezing tissue before it is excised⁽²⁸⁾. It has also shown that patients who underwent such "bloodless surgery" could be discharged from hospitals earlier and the risk of transfusion-related complications, such as blood-borne infections or immune suppression, may be minimised. Postoperatively, close monitoring should be instituted at the high dependency wards or intensive care units, depending on the volume of blood loss and patient's status.

CONCLUSIONS

It is essential that the healthcare professionals respect the autonomy and decisions made by each Jehovah Witness patient, although it may not be in their best interests in the doctors' professional beliefs. On the other hand, from the patients' perspective, it would seem to be in their best interests, with regard to respecting their spirituality and religious beliefs. Therefore, with proper counselling, empathy and

effective communication, as well as careful planning of their healthcare management, the outcome of the procedure might turn out to be a success, as in this case. Healthcare professionals should also be prudent and monitor the latest updates with regard to the possible reversal of the blood refusal doctrinal policy, since there is a long history of the Watchtower society reversing their doctrinal policies; for example, vaccinations were previously prohibited from 1929 to 1952, and organ transplants from 1967 to 1980⁽¹²⁾. Such policies, previously ruled as unacceptable and morally wrong, were now considered acceptable.

In conclusion, it is best recommended that individual hospitals and professional bodies set clear internal policies and management protocols on dealing with Jehovah Witnesses patients, as well as draw up a list of Jehovah Witness-friendly doctors who are readily accessible when Jehovah Witnesses are referred to or admitted into the hospital. A good reference for the hospitals in setting their internal policies and protocols will be the *Code of Practice for the Surgical Management of Jehovah Witnesses* published in 2002 by the Council of the Royal College of Surgeons of England⁽²⁹⁾. Such policies and guidelines will allow for consistency and good medical practice, whenever any doctors encounter Jehovah Witnesses in their medical practice and hence, prevent any medical, ethical, or legal dilemmas which may ensue.

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REFERENCES

- Busuttill D, Coplestone A. Management of blood loss in Jehovah's Witnesses. *BMJ* 1995; 311:1115-6. Comment in: *BMJ* 1996; 312:380-1.
- Behel FA, Kertz K. Why do Jehovah's Witnesses refuse blood? What legal and ethical concerns does this raise? *Bioethics in Brief*. University Hospital of SUNY Upstate Medical University Ethics Committee Publication: November 2001.
- Shaw HA, Ezenwa E. Secondary abdominal pregnancy in a Jehovah's Witness. *South Med J* 2000; 93:898-900.
- Harris AL, Engel TP. Anesthetic challenges and considerations presented by the Jehovah's Witness patient. Department of Anesthesiology, Loma Linda University School of Medicine, Loma Linda, California. Available at: www.unipa.it/~lanza/gta/JehovahsWitness.html. Accessed January 1, 2006.
- Harrington C. Father shunned by family for defying faith to save child. *Canadian Press* 2002. Mar 11 2002. Available at: www.watchtowerinformationsservice.org/fathershunned.htm. Accessed January 1, 2006.
- Elder L. The Associated Jehovah's Witnesses for Reform on Blood: why some Jehovah's Witnesses accept blood and conscientiously reject official Watchtower Society blood policy. *J Med Ethics* 2000; 26:375-80. Comment in: *J Med Ethics* 2000; 26:299-301, *J Med Ethics* 2001; 27:137-8. Comment on: *J Med Ethics* 1998; 24:223-30, *J Med Ethics* 1998; 24:376-81, *J Med Ethics* 1998; 24:295-301, *J Med* 1998; 24:302-7, *J Med Ethics* 1999; 25:463-8, *J Med Ethics* 1999; 25-469-72.
- Muramoto O. Bioethics of the refusal of blood by Jehovah's Witnesses: part 3: a proposal for a don't ask don't tell policy. *J Med Ethics* 1999; 25:463-8. Comment in: *J Med Ethics* 2000; 26:375-80, *J Med Ethics* 2000; 26:381-6. Comment on: *J Med Ethics* 1999; 25:469-72.
- Muramoto O. Recent developments in medical care of Jehovah's Witnesses. Available at: www.ajwr.org/wjm/wjm.htm. Accessed December 1, 2005.
- Dixon JL, Smalley MG. Jehovah's Witnesses. The surgical/ethical challenge. *JAMA* 1981; 246:2471-2.
- Muramoto O. Bioethical aspects of the recent changes in the policy of refusal of blood by Jehovah's Witnesses. *BMJ* 2001; 322:37-9. Comment in: *BMJ* 2001; 322:1124.
- Watchtower Blood Policy in 2006. The Watchtower 2006: June 15: 29-31. Available at: www.ajwr.org/. Accessed January 1, 2006.
- Jehovah's Witnesses and Blood. A Physician's Guide to saving lives and limiting personal liability. Available at: www.ajwr.org/physicians/download.shtml. Accessed December 3, 2005.
- Singapore – International Religious Freedom Report 2003: Released by Bureau of Democracy, Human Rights and Labor, US Department of State. Available at: www.state.gov/g/drl/rls/irf/2003/24320.htm. Accessed December 1, 2005.
- International Religious Freedom Report 2005: Russia. Released by Bureau of Democracy, Human Rights and Labor, US Department of State. Available at: portal-credo.ru/site/print.php?act=english&id=168. Accessed December 1, 2005.
- International Religious Freedom Report 2004: Syria. Released by the Bureau of Democracy, Human Rights, and Labor, US Department of State. Available at: www.libertyforum.org/showflat.php?Cat=&Board=news_philosophy&Number=294202043. Accessed December 1, 2005.
- The College of Physicians and Surgeons of Ontario Policy Statement 4-05. Consent to Medical Treatment. Jan/Feb 2006. Available at: www.cpso.on.ca/Policies/consent.htm. Accessed March 10, 2006.
- Brazier M. *Medicine, Patients and the Law*. 3rd ed. 2003, Penguin Reference Books.
- Descombes HM. Jehovah's Witnesses and Blood Transfusions. *J Med Ethics* 2001; 27:355.
- Muramoto O. Bioethics of the refusal of blood by Jehovah's Witnesses: part 2. A novel approach based on rational non-interventional paternalism. *J Med Ethics* 1998; 24:295-301. Comment in: *J Med Ethics* 1998; 24:302-7, *J Med Ethics* 2000; 26:375-80, *J Med Ethics* 2000; 26:381-6.
- Wilson P. Jehovah's Witness children: when religion and the law collide. *Paediatr Nurs* 2005; 17:34-7.
- Finger S, Howell S, Miller J, et al. Managing patients who refuse blood transfusions: an ethical dilemma. *BMJ* 1994; 308:1423-6. Comment in: *BMJ* 1994; 309:475, *BMJ* 1994; 309:124-5, *BMJ* 1994; 309:612.
- Liang BA. Clinical ethics commentary: no blood please. *Web M&M: Morbidity and Mortality Rounds on the Web*. Available at: webmm.ahrq.gov/cases.aspx?ic=59. Accessed December 3, 2005.
- Jones MA. The legal view. *BMJ* 1994; 308:1425.
- Medical Jurisprudence 2005-2006. Consent to Medical Treatment. Available at: 72.14.235.104/search?q=cache:_cwQDXGzW8J:www.law.ed.ac.uk/file_download/courses/handouts/Honours/42/333_200506consenthandout.doc+Medical+Jurisprudence+2005-2006.+Consent+to+Medical+Treatment&hl=en&gl=sg&ct=cInk&cd=2. Accessed January 1, 2006.
- Kee PT. Refusal to consent to treatment on religious grounds. *ELAW: Murdoch University Electronic Journal of Law* 1995; 2:2. Available at: www.murdoch.edu.au/elaws/issues/v2n2/kee221.htm. Accessed January 1, 2006.
- Stauch M. Comment on Re B (Adult: Refusal of Medical Treatment) [2002] 2 All England Reports 449. *J Med Ethics* 2002; 28:232-3.
- Lahey Clinic, Clinical and Administrative Policy and Procedure Manual. Blood: Care of Patients Requesting Blood-Free Treatment. Available at: www.lahey.org/Pdf/Ethics/PDF_Policy/5002.pdf. Accessed December 3, 2005.
- MSNBC.com. The Associated Press. Bloodless surgery avoids risks of transfusion. Techniques first used for Jehovah's Witnesses. April 24, 2006. Available at: www.msnbc.msn.com/id/12466831/. Accessed May 1, 2006.
- Royal College of Surgeons in England 2002 on "Code of Practice for the Surgical Management of Jehovah Witnesses". Available at: www.rcseng.ac.uk/rcseng/content/publications/docs/jehovahs_witness.html. Accessed December 3, 2005.

SINGAPORE MEDICAL COUNCIL CATEGORY 3B CME PROGRAMME

Multiple Choice Questions (Code SMJ 200611B)

	True	False
Question 1: Currently, these are considered as acceptable practices for the Jehovah Witnesses:		
(a) Vaccinations.	<input type="checkbox"/>	<input type="checkbox"/>
(b) Primary components of blood (such as whole blood).	<input type="checkbox"/>	<input type="checkbox"/>
(c) Organ transplants.	<input type="checkbox"/>	<input type="checkbox"/>
(d) Secondary components of blood (such as albumin and clotting factors).	<input type="checkbox"/>	<input type="checkbox"/>
Question 2: When a doctor decides to proceed with a procedure for a Jehovah Witness who refuses blood transfusion:		
(a) Ferrous fumarate and folate should be given preoperatively to optimise the patient's haemoglobin levels.	<input type="checkbox"/>	<input type="checkbox"/>
(b) Anticoagulants need not be stopped preoperatively.	<input type="checkbox"/>	<input type="checkbox"/>
(c) The most experienced anaesthetists should be recruited and reminded intraoperatively about the use of hypotensive anaesthesia or deliberate hypothermia.	<input type="checkbox"/>	<input type="checkbox"/>
(d) Close monitoring should be instituted at the high dependency ward or intensive care unit, depending on volume of blood loss.	<input type="checkbox"/>	<input type="checkbox"/>
Question 3: In the event of an emergency, when managing a Jehovah Witness with a blood card and if in doubt:		
(a) It is the responsibility of the doctor to institute blood transfusion regardless of the existence of the blood card so as to preserve life.	<input type="checkbox"/>	<input type="checkbox"/>
(b) It is important to seek guidance from the hospital ethics committee.	<input type="checkbox"/>	<input type="checkbox"/>
(c) Seek legal advice from the legal advisors of the hospital.	<input type="checkbox"/>	<input type="checkbox"/>
(d) It is essential to make an urgent ex parte application to the Courts.	<input type="checkbox"/>	<input type="checkbox"/>
Question 4: In the event that the doctor does not wish to continue managing a Jehovah Witness patient, he or she should:		
(a) Sign up or make a declaration as a conscientious objector.	<input type="checkbox"/>	<input type="checkbox"/>
(b) Discharge the patient and withdraw from the clinical management.	<input type="checkbox"/>	<input type="checkbox"/>
(c) Seek further medical opinion from the hospital ethics committee and other medical experts.	<input type="checkbox"/>	<input type="checkbox"/>
(d) Inform the Congregation to assist the patient in referring to another doctor.	<input type="checkbox"/>	<input type="checkbox"/>
Question 5: The following should be observed during the informed consent process:		
(a) Signing of an advanced directive to absolve the team and hospital of the risks associated with the refusal of blood.	<input type="checkbox"/>	<input type="checkbox"/>
(b) Proper documentation of the whole process of consultation and discussion in the medical case notes.	<input type="checkbox"/>	<input type="checkbox"/>
(c) Assessing the competency of the individual in making his or her own decisions.	<input type="checkbox"/>	<input type="checkbox"/>
(d) Disallow the patient to change his or her mind, if the choice perceived by the doctor is "irrational".	<input type="checkbox"/>	<input type="checkbox"/>

Doctor's particulars:

Name in full: _____

MCR number: _____ Specialty: _____

Email address: _____

Submission instructions:**A. Using this answer form**

1. Photocopy this answer form.
2. Indicate your responses by marking the "True" or "False" box
3. Fill in your professional particulars.
4. Post the answer form to the SMJ at 2 College Road, Singapore 169850.

B. Electronic submission

1. Log on at the SMJ website: URL <<http://www.sma.org.sg/cme/smj>> and select the appropriate set of questions.
2. Select your answers and provide your name, email address and MCR number. Click on "Submit answers" to submit.

Deadline for submission: (November 2006 SMJ 3B CME programme): 12 noon, 25 December 2006**Results:**

1. Answers will be published in the SMJ January 2007 issue.
2. The MCR numbers of successful candidates will be posted online at <http://www.sma.org.sg/cme/smj> by 15 January 2007.
3. All online submissions will receive an automatic email acknowledgment.
4. Passing mark is 60%. No mark will be deducted for incorrect answers.
5. The SMJ editorial office will submit the list of successful candidates to the Singapore Medical Council.