



COMITATO DI ASSISTENZA SANITARIA

dei Testimoni di Geova

SIRACUSA



La gestione clinica dei

Testimoni di Geova

UN APPROCCIO COLLABORATIVO





UN APPROCCIO COLLABORATIVO



OBIETTIVI



POSIZIONE

Comprendere la posizione dei Testimoni di Geova sui trattamenti medici



STRATEGIE

Implementare le strategie cliniche per non dover ricorrere a trasfusioni di sangue allogenico



RETE INFORMATIVA

Utilizzare la rete informativa creata dai Testimoni di Geova per dare supporto ai medici





POSIZIONE

In che cosa crediamo?



STRATEGIE

Come potete assisterci?



RETE INFORMATIVA

Come possiamo assistervi?



POSIZIONE

In che cosa crediamo?



I Testimoni di Geova **non sono contrari alla medicina e alla chirurgia**; molti di loro sono medici e infermieri. [...] **Cercano assistenza medica** per sé stessi e i loro familiari

Essam El-Hamamy et al. | **REGNO UNITO**

El-Hamamy E, Newman DS. **Jehovah's Witnesses and those who refuse blood transfusion**. In: Arulkumaran S, Karoshi M, Keith LG, et al, editors. *A Comprehensive Textbook of Postpartum Hemorrhage: An Essential Clinical Reference for Effective Management*. 2nd ed. London (UK): Sapiens Publishing; 2012. p. 587-601. [ISBN: 978-0-9552282-7-8]



OSPEDALI



MEDICI

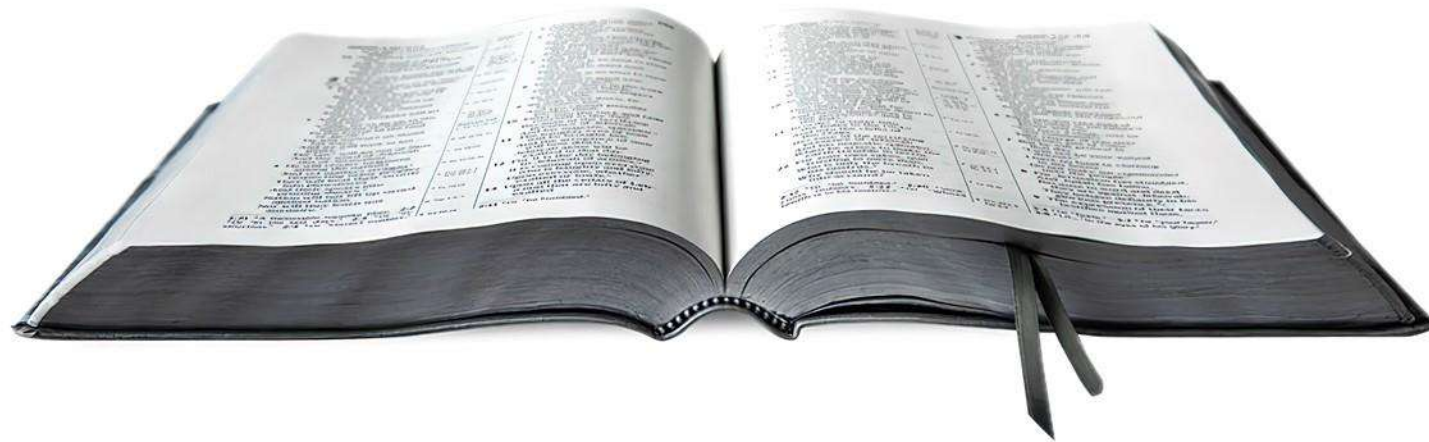


FARMACI



“ [Asteneatevi] dal **sangue** ”

Atti 15:20 | LA SACRA BIBBIA





PRODOTTI ALLOGENICI

NON
ACCETTABILI

DECISIONE
PERSONALE

Globuli rossi

Frazioni

Globuli bianchi

Frazioni

Piastrine

Frazioni

Plasma

Frazioni

PROCEDURE AUTOLOGHE

DECISIONE
PERSONALE

NON
ACCETTABILE

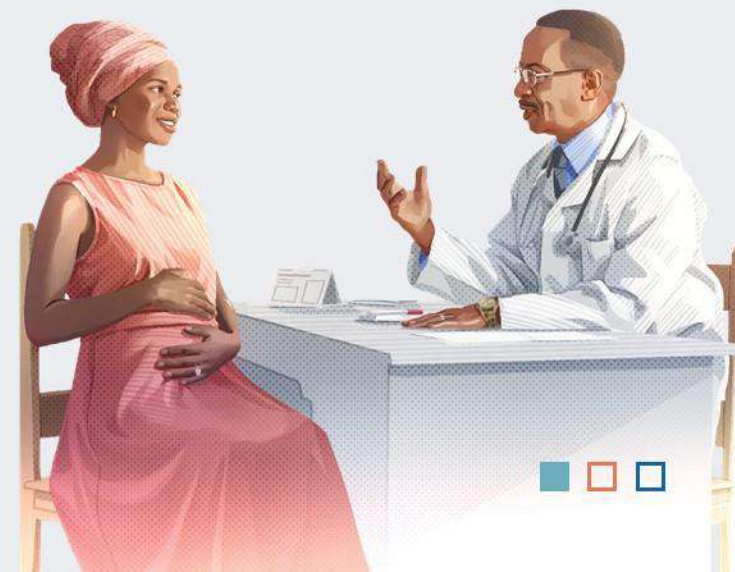
**Emodiluizione
normovolemica
acuta**

**Donazione
autologa
preoperatoria**

Dialisi

**Bypass
cardiopulmonare**

Recupero del sangue



PREPARAZIONE



Disposizioni anticipate di trattamenti sanitari (DAT) e indicazione del fiduciario

Documento redatto in conformità alla Legge del 22 dicembre 2017, n. 219

1. Io sottoscritto/a _____, (scrivere o digitare nome e cognome), nato/a a _____, il _____, redigo questo documento allo scopo di esprimere le mie volontà in materia di trattamenti sanitari e di indicare un fiduciario qualora io sia incapace di intendere e di volere.
2. Sono Testimone di Geova, e dispongo che in **NESSUN CASO MI SIANO PRATICATE TRASFUSIONI di sangue intero, di globuli rossi, di globuli bianchi, di piastrine o di plasma**, neanche qualora gli operatori sanitari ritengano che siano necessarie per salvarmi la vita (Atti 15:28, 29). Rifiuto di depositare il mio sangue perché mi venga trasfuso in un secondo tempo.
3. **In merito ai trattamenti di fine vita:** [apporte le proprie iniziali a una delle due voci]
(a) _____ Non voglio che la mia vita venga prolungata se c'è la ragionevole certezza medica che le mie condizioni sono senza speranza.
(b) _____ Voglio che la mia vita venga prolungata il più possibile nei limiti delle pratiche mediche generalmente accettate, anche se questo significherà che potrei essere tenuto in vita per anni mediante l'impiego di macchine.
4. **In merito ad altre disposizioni di tipo sanitario** (ad esempio terapie in corso, allergie, problemi di salute, o qualsiasi altra informazione relativa alle mie volontà in campo sanitario), specifico quanto segue:

Pagina 1 di 2

5. Non concedo a nessuno (nemmeno al fiduciario che ho indicato) l'autorità di ignorare o annullare le disposizioni che ho esposto in questo documento. I miei familiari, parenti o amici potrebbero non essere d'accordo con me, ma questo non interferisce con il mio rifiuto delle emotrasfusioni o con le altre disposizioni.

6. A eccezione delle questioni summenzionate, indico di seguito il mio fiduciario affinché decida per me in merito a questioni sanitarie. Gli conferisco pieni poteri e l'autorità di accettare o rifiutare a nome mio i trattamenti sanitari (incluse la nutrizione e l'idratazione artificiali), consultarsi con i medici, ricevere copia dei miei referti e adire le vie legali per assicurarsi che le mie volontà vengano rispettate. Qualora il mio fiduciario non sia disponibile, disposto a svolgere le sue funzioni o in grado di farlo, indico un fiduciario supplente affinché agisca con la stessa autorità.

(Firma leggibile del redigente *)

(Data)

(Indirizzo)

FIDUCIARIO*

Nome e cognome: _____

Nato/a a: _____ il: _____

Indirizzo: _____

Telefono(i): _____

Data e firma leggibile per accettazione

FIDUCIARIO SUPPLENTE*

Nome e cognome: _____

Nato/a a: _____ il: _____

Indirizzo: _____

Telefono(i): _____

Data e firma leggibile per accettazione

dpo-1 It 1/18

Pagina 2 di 2

* Nota: Il documento dovrà essere sottoscritto ai sensi dell'art. 4, comma 6, della Legge del 22 dicembre 2017, n. 219.

Disposizioni anticipate di trattamenti sanitari (DAT) e indicazione del fiduciario (documento firmato all'interio)

NIENTE SANGUE



DISPOSIZIONI ANTICIPATE DI TRATTAMENTO (DAT)

BANCA DATI NAZIONALE DEL MINISTERO DELLA SALUTE

SALUTE.GOV.IT





LEGGE 22 DICEMBRE 2017 N. 219

SERIE GENERALE

Sped. abb. post. - art. 1, comma 1
Legge 27.02.2004, n. 46 - Filiale di Roma

Anno 159° - Numero 12



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SOMMARIO

LEGGI ED ALTRI ATTI NORMATIVI

LEGGE 22 dicembre 2017, n. 219.

Norme in materia di consenso informato e di disposizioni anticipate di trattamento. (18G00006)..... Pag. 1

DECRETO LEGISLATIVO 22 dicembre 2017, n. 220.

Disposizioni integrative e correttive del decreto legislativo 18 agosto 2015, n. 142, di attuazione della direttiva 2013/33/UE recante norme relative all'accoglienza dei richiedenti protezione internazionale nonché della direttiva 2013/32/UE recante procedure comuni ai fini del riconoscimento e della revoca dello status di protezione internazionale. (18G00005)..... Pag. 4

DECRETI PRESIDENZIALI

DECRETO DEL PRESIDENTE DEL CONSIGLIO DEI MINISTRI 15 dicembre 2017.

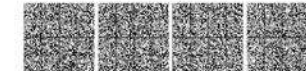
Programmazione transitoria dei flussi d'ingresso dei lavoratori non comunitari nel territorio dello Stato per l'anno 2018. (18A00306) ... Pag. 15

DECRETI, DELIBERE E ORDINANZE MINISTERIALI

Ministero dell'economia e delle finanze

DECRETO 22 dicembre 2017.

Riapertura delle operazioni di sottoscrizione dei buoni del Tesoro poliennali 2,05% con godimento 4 luglio 2017 e scadenza 1° agosto 2027, tredicesima e quattordicesima tranche. (18A00261) Pag. 17



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SOMMARIO

LEGGE ED ALTRI ATTI NORMATIVI

LEGGE 22 dicembre 2017, n. 218

Norme in materia di consenso informato e di disposizioni anticipate di trattamento. (13060000) Pag. 1

DECRETO LEGISLATIVO 22 dicembre 2017, n. 226

Disposizioni integrative e correttive del decreto legislativo 18 agosto 2015, n. 145, di attuazione della direttiva 2015/2312 e recante norme relative all'accoglienza dei richiedenti protezione internazionale nonché della direttiva 2013/32/UE recante procedure comuni ai fini del riconoscimento e della revoca dello status di profughi internazionali. (13060001) Pag. 4

DECRETI PRESIDENZIALI

DECRETO DEL PRESIDENTE DEL CONSIGLIO DEI MINISTRI 11 dicembre 2017
Programma plurianno trasversale dei Beni d'interesse dei beneficiari non convenzionati nell'ambito della Stato per l'anno 2018. (13A03001) Pag. 13

DECRETI, DELIBERE E ORDINANZE MINISTERIALI

Ministero dell'economia e delle finanze

DECRETO 22 dicembre 2017
Rapporto delle operazioni di sottoscrizione dei titoli del Tesoro postali del 2,80% con garanziato e luglio 2017 e scadenza 1° agosto 2017, ivi compresa la quotazione in corso. (13A01001) Pag. 17



COMMA 5

- Diritto di rifiutare qualsiasi trattamento sanitario

COMMA 4

- Acquisizione in forma scritta o con videoregistrazione
- Inserimento nella cartella clinica

Articolo 1
CONSENSO INFORMATO



Articolo 1

CONSENSO INFORMATO

COMMA 6

■ «Il medico è tenuto a rispettare la volontà espressa dal paziente [...] e, in conseguenza di ciò, è esente da responsabilità civile o penale»

COMMA 9

■ Ogni struttura sanitaria garantisce il rispetto della legge



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SOMMARIO

LEGGE ED ALTRI ATTI NORMATIVI	DECRETI PRESIDENZIALI
LEGGE 22 dicembre 2017, n. 218 Norme in materia di consenso informato e di disposizioni anticipate di trattamento. (18060000) Pag. 1	DECRETO DEL PRESIDENTE DEL CONSIGLIO DEI MINISTRI 11 dicembre 2017 Programmiatori trasversali dei Beni d'origine dei benefici non vincolati nel territorio dello Stato per l'anno 2018. (15A03000) ... Pag. 13
DECRETO LEGISLATIVO 22 dicembre 2017, n. 226 Disposizioni integrative e correttive del decreto legislativo 18 agosto 2015, n. 145, di attuazione della direttiva 2013/29/UE recante norme relative all'accoglienza dei richiedenti protezione internazionale nonché della direttiva 2013/32/UE recante procedure comuni ai fini del riconoscimento e della revoca dello status di profughi internazionali. (18060001) Pag. 4	DECRETI, DELIBERE E ORDINANZE MINISTERIALI Ministero dell'economia e delle finanze DECRETO 22 dicembre 2017 Rapporto delle operazioni di sottoscrizione dei titoli del Tesoro postali del 2017, nei quali, al 31 dicembre 2017, è scadrà l'agente 2017, in deroga a quanto previsto in materia. (15A07001) Pag. 17

Articolo 4
DISPOSIZIONI ANTICIPATE
DI TRATTAMENTO (DAT)

COMMA 1

- Ogni maggiorenne può esprimere il rifiuto di trattamenti sanitari attraverso le DAT
- Indicazione di un fiduciario

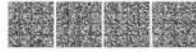


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SOMMARIO

LEGGE ED ALTRI ATTI NORMATIVI	DECRETI PRESIDENZIALI
LEGGE 22 dicembre 2017, n. 218 Norme in materia di consenso informato e di disposizioni anticipate di trattamento. (18060000) Pag. 1	DECRETO DEL PRESIDENTE DEL CONSIGLIO DEI MINISTRI 11 dicembre 2017 Programmi di spesa dei Beni d'interesse culturale non vincolati nel territorio dello Stato per l'anno 2018. (18A03000) Pag. 13
DECRETO LEGISLATIVO 22 dicembre 2017, n. 226 Disposizioni integrative e correttive del decreto legislativo 18 agosto 2015, n. 145, di attuazione della direttiva 2013/24/UE recante norme relative all'accoglienza dei richiedenti protezione internazionale nonché della direttiva 2013/32/UE recante procedure comuni ai fini del riconoscimento e della revoca dello status di profughi internazionali. (18060001) Pag. 4	DECRETI, DELIBERE E ORDINANZE MINISTERIALI Ministero dell'economia e delle finanze DECRETO 22 dicembre 2017 Rapporto delle operazioni di sottoscrizione dei titoli del Tesoro postali del 2017, nei quali, al 31 dicembre 2017, è scadrà l'agente 2017, in deroga e sostituzione transitoria. (18A01001) Pag. 17



Articolo 3

MINORI E INCAPACI

COMMA 2

- Consenso o rifiuto espresso dal rappresentante del minore
- Diritto alla valorizzazione della volontà del minore maturo

COMMA 5

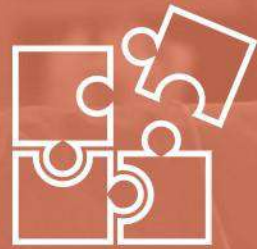
- Competenza del giudice tutelare in caso di disaccordo tra rappresentante legale e medico





POSIZIONE

Cure mediche di qualità
senza trasfusioni di sangue



STRATEGIE

Come potete assisterci?



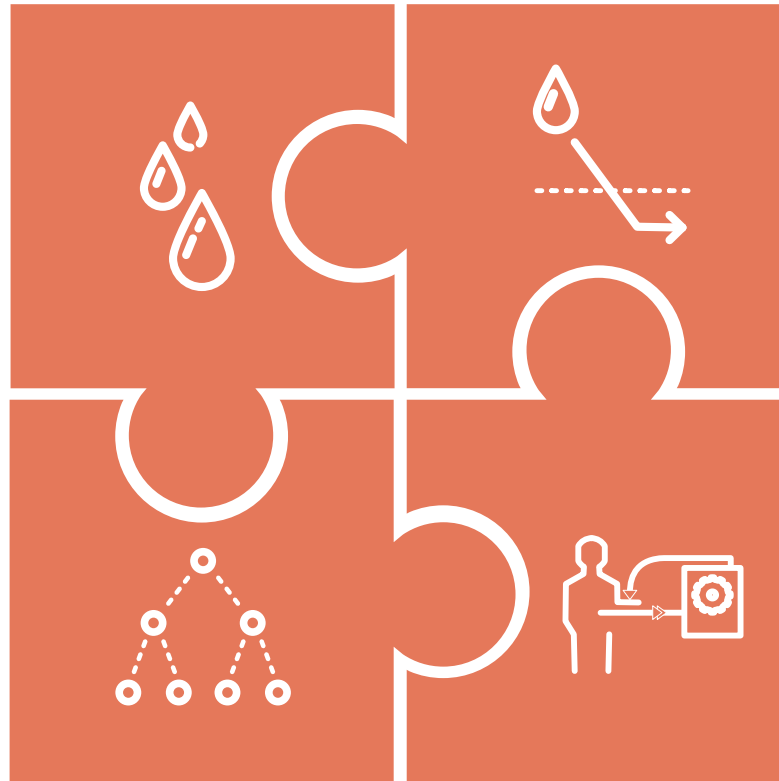
In generale nei pazienti adulti che hanno ricevuto cure senza sangue abbiamo riscontrato **risultati clinici simili** a quelli dei pazienti che hanno ricevuto le cure standard. [...] Le cure senza sangue sono **meno costose** e dovrebbero essere tenute **in alta considerazione**

Steven Frank et al. | **STATI UNITI**

Frank SM, Pippa A, Sherd I, Scott AV, Lo BD, et al. **Methods of bloodless care, clinical outcomes, and costs for adult patients who decline allogeneic transfusions.** *Anesth Analg* 2022;135(3):576-85. [PMID: 35977366]

STRATEGIE

MINIMIZZAZIONE
DELLA PERDITA DI
SANGUE

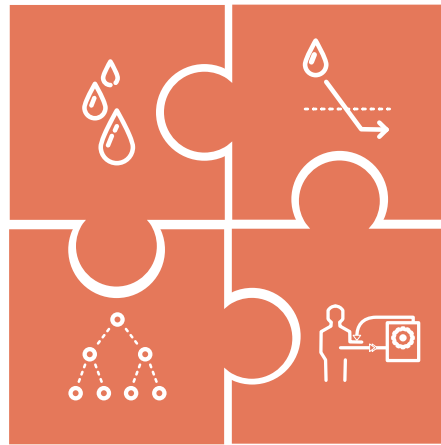


TOLLERANZA
DELL'ANEMIA

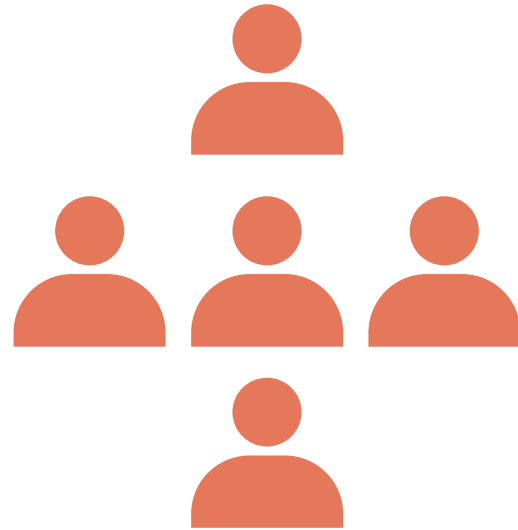
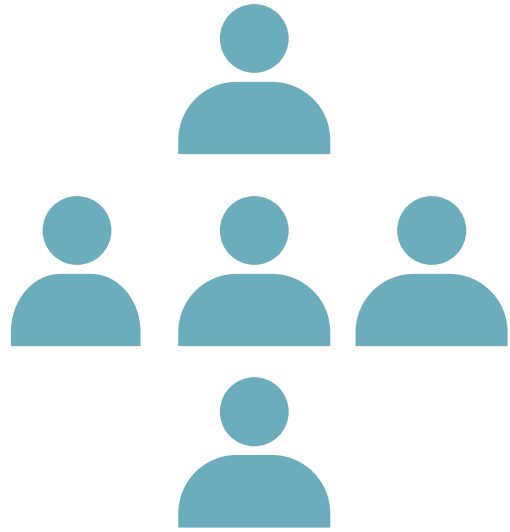
POTENZIAMENTO
DELL'EMOPOIESI

GESTIONE DEL
SANGUE AUTOLOGO

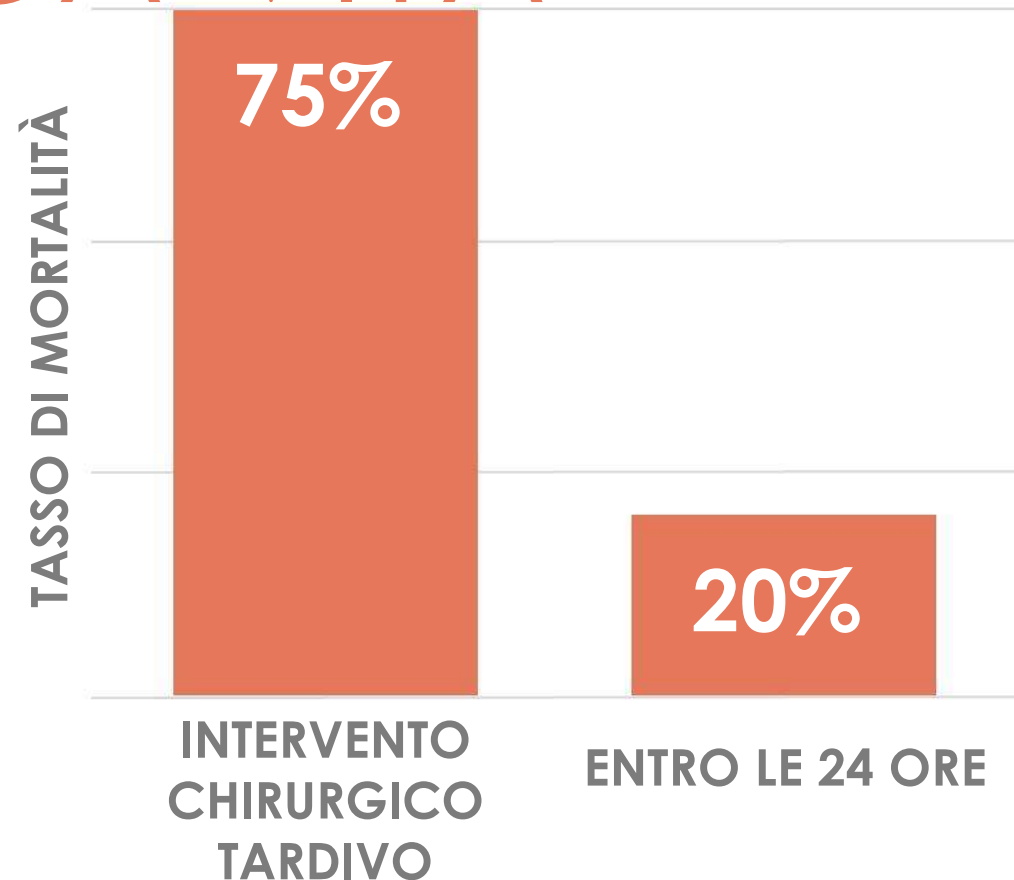
APPROCCIO MULTIMODALE



APPROCCIO MULTIDISCIPLINARE



LA TEMPESTIVITÀ SIGNIFICA VITA



Tratto da: Atabek U, Spence RK, Pello M, Alexander J, Camishion R. **Pancreaticoduodenectomy without homologous blood transfusion in an anemic Jehovah's Witness.** *Arch Surg* 1992;127(3):349-51. [PMID: 1347993]

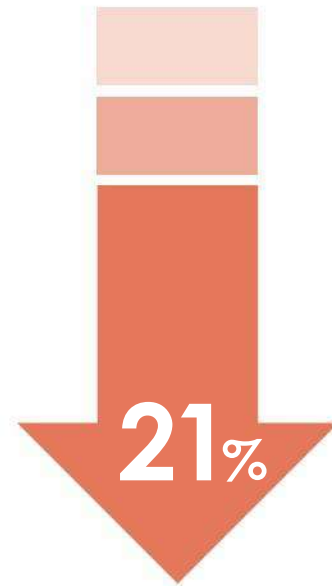


RISULTATI

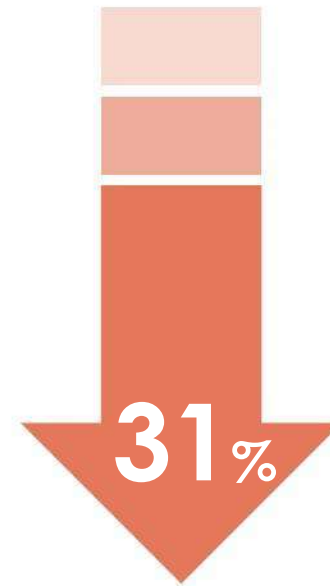
Programma di Patient Blood Management nell'Australia Occidentale



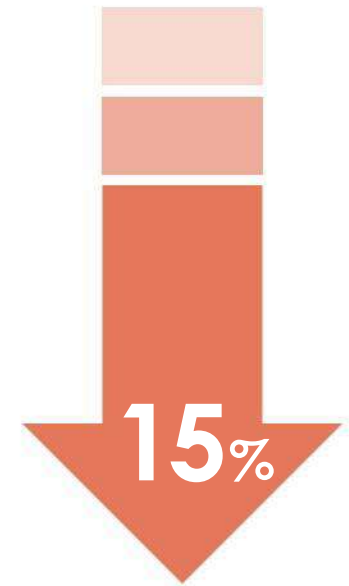
Mortalità



Infezioni



Infarti
miocardici
acuti/Ictus



Tempi di degenza

\$78.000.000

DOLLARI | Risparmio stimato in base all'attività

6
anni

4
ospedali



CASI DI STUDIO



CHIRURGIA CARDIOTORACICA



OSTETRICA E GINECOLOGIA



PEDIATRIA



TRAUMATOLOGIA



GASTROENTEROLOGIA



NEONATOLOGIA



CHIRURGIA ORTOPEDICA



ONCOEMATOLOGIA



TERAPIA INTENSIVA



STRATEGIE

**Strategie basate su evidenze
scientifiche per evitare
trasfusioni di sangue**



RETE INFORMATIVA

Come possiamo assistervi?



I Testimoni di Geova impiegano i Comitati di assistenza sanitaria per **ridurre eventuali controversie legali o morali**. [...] Avere in anticipo i loro contatti è utile per **stabilizzare i pazienti e rimanere concentrati sul trattamento medico** senza ritardi

Jong Hyun Lee & Wonsik Ahn | **COREA**

Lee JH, Ahn W. **The stance of Jehovah's Witnesses on the use [of] blood and Hospital Liaison Committee**. *Korean J Anesthesiol* 2011;60(4):302. [PMID: 21602984]





SERVIZIO DI INFORMAZIONE SANITARIA

per i Testimoni di Geova

**SERVIZIO DI
INFORMAZIONE
SANITARIA**

per i Testimoni di Geova

WARWICK, NEW YORK, USA



6
CONTINENTI



86
UFFICI



oltre 2.000
COMITATI DI ASSISTENZA SANITARIA (CAS)



oltre 50.000
VOLONTARI



oltre 100.000
MEDICI CON ESPERIENZA



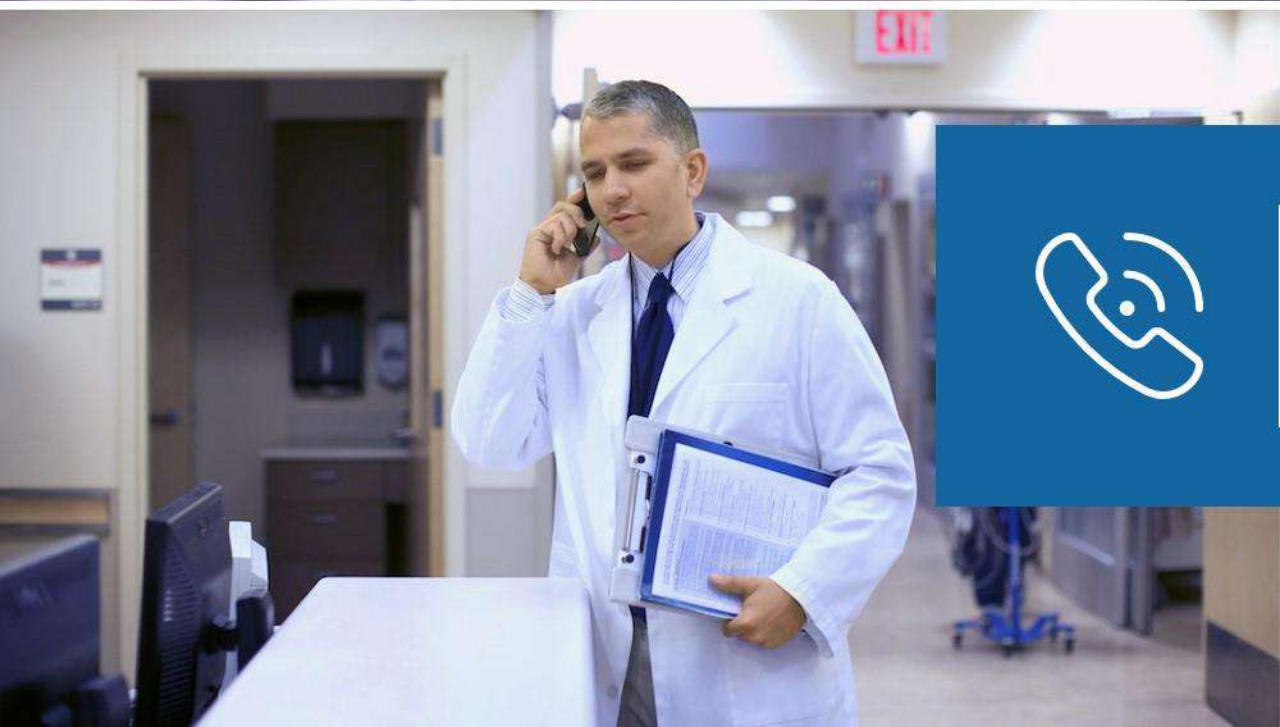
COMITATO DI ASSISTENZA SANITARIA

per i Testimoni di Geova

oltre 2.000



PRESENTAZIONI



CONSULENZE





 | SUPPORTO



RISORSE



SITO WEB



jw.org/medical



MIGLIAIA DI RIFERIMENTI SCIENTIFICI



COLLABORAZIONE





RETE INFORMATIVA



Assistenza in tutto il mondo per medici e pazienti



Vi ringraziamo!

CI SONO DOMANDE?





CAS
SIRACUSA

348 3524817



jw.org/medical

Multidisciplinary management of a Jehovah's Witness patient for the removal of a renal cell carcinoma extending into the right atrium

[La prise en charge multidisciplinaire d'un patient Témoin de Jéhovah pour le retrait d'un hypernéphrome s'étendant dans l'oreillette droite]

David M. Moskowitz MD,* Seth I. Perelman MD,* Katherine M. Cousineau CCP,† James J. Klein MD,‡ Aryeh Shander MD,* Eric J. Margolis MD,‡ Steven A. Katz MD,‡ Henry L. Bennett PhD,* Nate E. Lebowitz MD,§ M. Arisan Ergin MD†

Objectif: To highlight the management of a Jehovah's witness patient presenting for cardiopulmonary bypass (CPB) during laparoscopic prostatectomy.

Clinical Summary: A 57-year-old male Jehovah's witness, with renal cell carcinoma and a desire for self-sufficiency, underwent laparoscopic prostatectomy. The patient's religious beliefs precluded the use of blood transfusion. The multidisciplinary team worked to minimize the patient's blood loss. Intraoperative strategies included the use of autologous blood salvage, cell salvage, and blood conservation techniques. The patient was discharged home one week after the operation with a hemoglobin of 11.2 g/L and a hematocrit of 31.2%.

Conclusion: Multiple blood conservation techniques were employed to manage the Jehovah's witness patient through an open cardiac bypass, which was previously deemed to be an absolute contraindication. The successful outcome of this patient, who refused allogeneic blood transfusion, demonstrates a coordinated multidisciplinary collaboration as well as the application of advanced blood conservation techniques.

Motif: Présenter la prise en charge d'un patient Témoin de Jéhovah devant à subir une prostatectomie (PP) en étant connecté à un appareil de circulation extra-corporelle (CEC).

Résumé clinique: Un homme de 57 ans, Témoin de Jéhovah, atteint d'un hypernéphrome, désirait une prostatectomie laparoscopique. Le patient refusait toute transfusion sanguine. L'équipe multidisciplinaire travailla à minimiser la perte de sang du patient. Les stratégies intraopératoires incluaient l'utilisation d'un appareil de récupération de sang autologue, d'un appareil de récupération de sang et de cellules, et de techniques de conservation de sang. Le patient fut discharged à domicile une semaine après l'opération avec un hémoglobine de 11,2 g/L et un hématocrite de 31,2%.

Conclusion: Plusieurs techniques de conservation de sang ont été employées pour gérer un chirurgie d'un patient Témoin de Jéhovah au cours d'une prostatectomie laparoscopique. Le succès de ce patient démontre une collaboration multidisciplinaire ainsi que l'application de techniques de conservation de sang.

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CHIRURGIA CARDIOTORACICA

Multidisciplinary management of a Jehovah's Witness patient for the removal of a renal cell carcinoma extending into the right atrium

Moskowitz DM, Perelman SI, Cousineau KM, Klein JJ, Shander A, et al. **Multidisciplinary management of a Jehovah's Witness patient for the removal of a renal cell carcinoma extending into the right atrium.** *Can J Anaesth* 2002;49(4):402-8. [PMID: 11927481]



■ CASE REPORT

Successful Resuscitation Following Massive Obstetric Hemorrhage in a Patient of the Jehovah's Witness Faith: A Case Report

Richard M. Hubbard, MD,* Jonathan H. Waters, MD,† and Mark H. Yazer, MD‡

Obstetric hemorrhage is a leading cause of maternal morbidity and mortality worldwide. It is especially difficult to treat in patients of the Jehovah's Witness faith because they refuse certain blood products. This case report describes the successful resuscitation of a parturient of the Jehovah's Witness faith following a massive obstetric hemorrhage. The patient was transfused with cryoprecipitate, fibrinogen, and platelets, and she received a blood-sparing regimen of tranexamic acid and aprotinin. Her obstetric management was unremarkable. The case report states the use of point-of-care testing, blood conservation, and integration of her management in the specific patient population. (Am J Case Rep. 2017;8:326-9.)

Postpartum hemorrhage is a leading cause of maternal morbidity and mortality worldwide, and its prevalence has been increasing in recent decades.¹⁻⁴ This condition is particularly difficult to treat when it occurs in members of the Jehovah's Witness (JW) faith, a Christian denomination of 17 million people worldwide, whose teachings include a prohibition against the receipt of certain blood products.⁵ Approximately 50% of JW patients have demonstrated a to 20-fold greater postpartum mortality than the general population.⁶⁻⁸ There is a common genetic trait among JW's: one variant that JW patients share is blood products, but not red blood cells (RBCs), platelets, and plasma. This understanding may compromise care in acute hemorrhage cases.⁹

When consent was obtained from the patient for publication of this report, the first author, who was not involved in her care, wrote the manuscript, and the second author approved the document.

CASE DESCRIPTION

A 29-year-old G1P1 JW patient was admitted for a planned cesarean section delivery at a regional medical center. Two days before her surgery, the patient completed a form through the Western Medicine Service that detailed which blood products she considered acceptable (Figure 1). This service provides one-on-one phone consultation and allows a health care provider to ask a decision-making JW patient if she would accept receiving plasma, cryoprecipitate, platelets, or fresh whole blood, which was obtained in a continuous consult between the hospital and the blood storage facility, and the patient (in attendance) declined. Her obstetric management included a general anesthetic and an epidural catheter. On the day of admission, her hemoglobin was 11 mg/dL.

Postpartum hemorrhage was defined through a single-clip spiral hysterectomy, and a vigorous breast-feeding was delivered.

Blood Product	Accepted	Not Accepted
Whole Blood		X
Red Blood Cells (RBCs)		X
Platelets		X
Plasma		X
Albumin	X	
Cryoprecipitate		X
Fibrinogen		X
Factor VIII/IX/III/VIII/II/III		X
Factor VII/III/III/III/III/III		X
Factor X/III/III/III/III/III		X
Factor XI/III/III/III/III/III		X
Factor XII/III/III/III/III/III		X
Factor XIII/III/III/III/III/III		X
Factor XIV/III/III/III/III/III		X
Factor XV/III/III/III/III/III		X
Factor XVI/III/III/III/III/III		X
Factor XVII/III/III/III/III/III		X
Factor XVIII/III/III/III/III/III		X
Factor XIX/III/III/III/III/III		X
Factor XX/III/III/III/III/III		X
Factor XXI/III/III/III/III/III		X
Factor XXII/III/III/III/III/III		X
Factor XXIII/III/III/III/III/III		X
Factor XXIV/III/III/III/III/III		X
Factor XXV/III/III/III/III/III		X
Factor XXVI/III/III/III/III/III		X
Factor XXVII/III/III/III/III/III		X
Factor XXVIII/III/III/III/III/III		X
Factor XXIX/III/III/III/III/III		X
Factor XXX/III/III/III/III/III		X

Figure 1. The blood product acceptance consent form that was completed by the patient before admission, reflecting her choices for the blood care that she would and would not accept.

A blood-sparing approach to postpartum JW patients that includes careful attention to fluid and electrolyte balance, including diuresis, transfusion, and blood-sparing techniques, and transfusion to anticipate and manage any postpartum complications.¹⁰ Careful blood-sparing with these patients may avoid significant morbidity in compliance of individual blood products, administered which may become critical in cases of acute hemorrhage.¹¹ Transfusion and postpartum care should ideally be designed to conserve blood loss and prevent JW patients from the utilizing of appropriate treatment modalities which do not violate the restrictions of individual patients.¹²

A number of reports detailing hemorrhage as a cause of death in postpartum JW patients with obstetric hemorrhage have been published.¹³⁻¹⁵ The hemorrhage levels between 1.1 and 3.1 mg/dL.¹⁶ The first author of this case report, who is a member of the JW faith, was involved in the management of a hemorrhage of 1.7 mg/dL and significant hemodynamic instability because of an elevated blood in the patient was seen 2.5 following an emergency cesarean hysterectomy.

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OSTETRICIA E GINECOLOGIA

Successful resuscitation following massive obstetric hemorrhage in a patient of the Jehovah's Witness faith: a case report

Hubbard RM, Waters JH, Yazer MH. **Successful resuscitation following massive obstetric hemorrhage in a patient of the Jehovah's Witness faith: a case report.** *A A Case Rep* 2017;8(12):326-9. [PMID: 28306583]

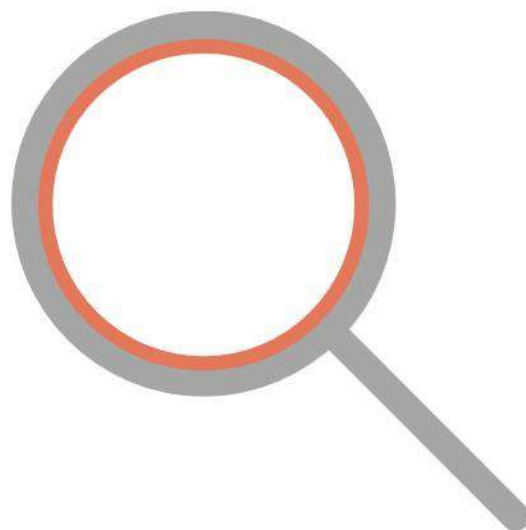


Noi rifiutiamo
**le trasfusioni di
sangue**, non le cure
mediche





Letteratura



Opzioni



Rischi



Le ordinanze del tribunale per le trasfusioni possono [...] **causare dei dissapori** tra i genitori e il personale ospedaliero. [...] **Si può evitare** [...] di arrivare a tanto se le cure vengono pianificate bene e includono un dialogo aperto con la famiglia

Aryeh Shander et al. | **STATI UNITI**

Shander A, Goodnough LT. **Management of anemia in patients who decline blood transfusion.** *Am J Hematol* 2018;93(9):1183-91. [PMID: 30033541]

— Case Reports —

Management of severe anemia without transfusion in a pediatric Jehovah's Witness patient

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The Jehovah's Witness religion was founded in the late 1870s by Charles Taze Russell in Pittsburgh, PA (1). There are over half a million Jehovah's Witnesses in the United States (2). Members of this religious sect do not receive blood transfusions, a religious tenet that continues to pose ethical and clinical challenges to physicians. In a study of adult Jehovah's Witnesses, a majority indicated that they would not consider seeing a physician who attempted to force a transfusion (3). We report the case of a 10-year-old Jehovah's Witness who refused blood transfusion for a severe anemia which he developed after receiving a renal allograft.

CASE REPORT

The patient is a 10-year-old male with a history of renal allograft transplantation and chronic renal failure requiring peritoneal dialysis since the age of 9 yrs. His past medical history was significant for bilateral nephrectomy and an uneventful renal transplant from his father because of primary neoplasia of the allograft. He also has a history of hypertension and hyperkalemia.

He was admitted to the pediatric intensive care unit (ICU) after renal transplant. The donor kidney was from his mother. His initial physical examination in the pediatric ICU was unremarkable. His vital signs were stable. Initial laboratory investigation revealed a hemoglobin concentration of 9 g/dL (90 g/L), hematocrit of 28%, blood urea nitrogen was 17 mg/dL (1.2 mmol/L), and creatinine was 2.2 mg/dL (190 µmol/L). On the second postoperative day, he remained clinically stable with good allograft

function. Blood urea nitrogen was 10 mg/dL (0.9 mmol/L), and creatinine had decreased to 1.2 mg/dL (105 µmol/L). On postoperative day 4, his serum creatinine concentration increased to 2.1 mg/dL (185.9 µmol/L), hemoglobin was 8.4 g/dL (84 g/L), his serum lactate dehydrogenase, and the hematocrit was 26.0%. He remained clinically stable and was taken to the operating room for an open renal biopsy. The histologic findings on the biopsy specimen were interpreted as consistent with recurrence of primary disease in the donor kidney without evidence of rejection of the allograft.

On postoperative day 7, his hematocrit was 20%. He refused blood transfusion; his parents also signed a written statement upholding that decision. Postoperative day 8 was significant for further deterioration in his clinical status. Temperature (axillary) was 37°C, the heart rate was 90 to 95 beats/min, respiratory rate was 20 breaths/min, and blood pressure was 110/60 mm Hg. Physical examination was significant for extreme pallor, tachypnea, and mild and coarse rales. Significant findings included a bounding pulse and active peripheral vasculature, with a leftward displacement of the apical impulse. On auscultation, he had a grade 2/6 systolic murmur anterior along the lower left sternal border, with an S2 gallop. Hemoglobin was 1.4 g/dL (14 g/L), hematocrit was 4%, blood urea nitrogen concentration had increased to 127 mg/dL (11.2 mmol/L), creatinine was 3.2 mg/dL (283.9 µmol/L), and the serum potassium concentration was 4.2 mmol/L. A chest radiograph showed moderate cardiomegaly.

In view of his deteriorating clinical status, the patient was intubated and mechanically ventilated. Spontaneous and paralytic gases were used as sedative therapy. Hypotension was induced by further cooling to maintain renal temperature at 34° to 35°C. Probenecid was administered at a loading dose of 4 mg/kg, followed by a continuous infusion at 1 mg/kg/hr. Neuroleptic blockade was maintained with propofol infusion at 0.1 mg/kg/hr. End-tidal CO₂ was monitored and maintained at 30 torr (4.0 kPa); the arterial oxygen saturation was 100%. Blood sampling was limited to 1 to 2 mL daily for blood urea nitrogen, creatinine, hemoglobin, and hematocrit measurements. Arterial blood gas measurements showed a pH of 7.46, PaO₂ of 100 torr (13.3 kPa), PaCO₂ of 30 torr (4.0 kPa), with 100% arterial oxygen saturation. Supplemental human antihypertensive (Dopamine[®], Angus, Trossard, Ohio, U.S.A.) 10.000 units administered twice daily was begun.

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Key Words: Jehovah's Witness; anemia; blood transfusion; hypertension; renal; peritoneal dialysis; renal transplantation; renal transplantation; renal graft.



PEDIATRIA

Management of severe anemia without transfusion in a pediatric Jehovah's Witness patient

Akingbola OA, Custer JR, Bunchman TE, Sedman AB. Management of severe anemia without transfusion in a pediatric Jehovah's Witness patient. *Crit Care Med* 1994;22(3):524-8. [PMID: 8125005]





Case Reports

Care of the Injured Jehovah's Witness Patient: Case Report and Review of the Literature

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Care for the Jehovah's Witness patient can be a challenge and often a dilemma in clinical practice because of the patient's religious belief and teaching against receiving blood and blood products, especially in emergency or trauma settings. We present a case of a severely injured Jehovah's Witness patient who survived. We also review the literature and offer an organized approach to care for such patients. © 2004 by Elsevier Inc.

Keywords: Jehovah's Witness; blood transfusion; orthogonosis; Jehovah's Witness patients; trauma.

Introduction

Over one million Jehovah's Witnesses live in the United States.¹ Their religious conviction against receiving blood and blood products can create a difficult ethical dilemma, particularly in the trauma setting. Improvements in surgical techniques, decreased phlebotomy rates, and use of orthogonosis have allowed clinicians to perform quite complex surgical procedures such as coronary artery bypass grafting² or liver transplantation.³ However, in an acute emergency with a significant amount of blood loss, anesthesia and operations are less desirable to limit further blood loss and improve the chances of patient survival. We present a case of a severely injured Jehovah's Witness patient, review the literature, and offer an organized approach to care for such patients.

Case Report

A 37-year-old man was an unrestrained driver in a car that hit a tree. He reported no loss of consciousness and was hemodynamically stable at the scene. He was admitted to an emergency room at an outside hospital, at which time a hemoglobin (Hct) level of 16.4% was noted. After an episode of hemoglobin (Hct) deterioration, he was transferred to UMass Memorial Medical Center to the Emergency Department of this institution. He became increasingly hypotensive (blood pressure 40 mmHg), but responded promptly to an intravenous (IV) transfusion bolus. The only active external bleeding source was the nose, which was easily controlled. The remainder of the working revealed right-sided rib fractures, right acetabular floor nail and methylene blue, bilateral pneumothorax, bilateral pulmonary contusions, and fractures of the left distal humerus and left distal femur. The admitting Hct level was 7.7 g/dL. Although a left chest tube

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TRAUMATOLOGIA

Care of the injured Jehovah's Witness patient: case report and review of the literature

Kulvatunyou N, Heard SO. Care of the injured Jehovah's Witness patient: case report and review of the literature. *J Clin Anesth* 2004;16(7):548-53. [PMID: 15590263]



Management of anemia in patients who decline blood transfusion

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Abstract

Deciding a treatment modality should not be considered the same as refusal of medical care as illustrated by the management of Jehovah's Witness patients who do not accept transfusions. Over the years, a comprehensive set of strategies have been developed to meet the specific needs of these patients and these strategies are collectively called "Bloodless Medicine and Life Support" (BMLS). The focus is BMLS is to optimize the patient's hemostatic capacity to minimize transfusion-related blood loss, improve hemostasis, and provide supportive strategies to minimize oxygen consumption and maximize oxygen utilization. We present 2 case reports that illustrate some of the challenges faced and resources available to effectively treat these patients. Under BMLS programs, patients with extremely low hemoglobin levels, can continue to survive under various conditions, have survived and recovered without receiving allogeneic transfusions. Additionally, the valuable experience gained from caring for these patients has aided the way to develop the concept of Patient Blood Management as a standard care to benefit all patients, and not only those for whom blood is not an option.

1 | CASE 1

A 58-year-old male with history of prior type 2 diabetes mellitus (DM2) and gastroesophageal reflux disease (GERD) presented to the Emergency Department (ED) with acute hematemesis. The patient also had other signs such as blood pressure 200/100 mm Hg, heart rate 100 beats/min, respiratory rate 20 breaths/min, and no fever. The patient was awake and oriented and reported to the staff that hematemesis had been ongoing for the last 2 to 3 days since there was no relief provided to the ED. His history revealed that blood transfusion was not an option since he was a Jehovah's Witness. Complete blood count (CBC) of a sample drawn on admission showed a hemoglobin (Hgb) of 5.2 g/dL, with low mean corpuscular volume (MCV), without blood parameters were within normal range.

Deciding a treatment modality should not be considered the same as refusal of medical care as illustrated by the management of Jehovah's Witness patients who do not accept allogeneic blood transfusions. Over the years and through a collaborative approach between the clinicians and Jehovah's Witness patients and their representatives, a comprehensive set of strategies have been developed to meet the specific needs of these patients and these strategies are collectively called "Bloodless Medicine and Life Support" (BMLS).¹ The focus is

BMLS is to optimize the patient's hemostatic capacity to minimize high-level transfusion blood loss by reducing surgical blood loss and minimizing diagnostic gastrointestinal (GI) mucosal hemostasis, and provide supportive strategies to minimize oxygen consumption and maximize oxygen utilization.² An example of a BMLS protocol to use at the time of an intervention is provided in Table 1.

The case individual's BMLS protocol, intravenous (IV) balanced salt solution was started and the BMLS coordinator and Gastroenterology (GI) services were notified. Advanced directives detailing details of acceptable components, volume, and modification was obtained from the patient and he was intubated for an immediate upper GI endoscopy. Endoscopy revealed a 2-cm bleeding duodenal ulcer that was uncontrolled. Prior endoscopy the Hgb was 5.4 g/dL and the patient was transfused to the ED. On admission to the ED, BP was 160/100 mm Hg, HR 100 beats/min, and RR 20 breaths/min. He appeared comfortable and was intubated after administration of sedation and muscle relaxation and was mechanically ventilated with 100% fraction of inspired oxygen (FiO₂) flow volume 200 mL with PEEP 10 and recruitment maneuvers (RM) applied (20 RM with 100 mL subcutaneous (SC) epinephrine). The arterial blood gas (ABG) obtained within 1 h of intubation showed a partial oxygen pressure (PO₂) of 460 mm Hg and the pH_{7.35} was adjusted to address a pH_{7.35} of 7.35. Urinary tract pressure



GASTROENTEROLOGIA

Management of anemia in patients who decline blood transfusion

Shander A, Goodnough LT. Management of anemia in patients who decline blood transfusion. *Am J Hematol* 2018;93(9):1183-91. [PMID: 30033541]



Case Report

Korean J Anesthesiol 2010 December 59(Suppl):S141-S145
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Transfusion-free anesthetic management for open heart surgery in a neonate -A case report-

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In small infants or neonates, open heart surgery without transfusion can have many risks regarding hemodynamic oxygen delivery and oxygenation. However, if parents refuse blood transfusion, cardiac surgery without transfusion should be considered. We report a case of thoracic cardiac surgery in a 1.08 kg neonate with Edwards's syndrome. Blood-sparing strategies were used. Preoperatively, erythropoietin and iron were supplemented to increase the hemoglobin level. Intraoperatively, techniques for minimizing blood loss were used, such as reducing priming volume for cardiopulmonary bypass, a blood salvage system, and modified aortic clamping. Postoperatively, pharmacologic agents were administered and blood sampling was minimized. (Korean J Anesthesiol 2010; 59: S141-S145)

Key Words: Thoracic cardiac surgery, Infant cardiac surgery, Edwards's Syndrome

Cardiopulmonary bypass (CPB) and cardiac surgery can cause bleeding and coagulopathy. In neonates, transfusion may be desirable for open heart surgery because the CPB circuit volume and the priming volume are relatively large in relation to the patient size and blood volume. In addition, even a small blood loss can decrease the ability to deliver oxygen and cause coagulable abnormalities. Despite these facts, some Edwards's Syndrome parents refuse transfusion in their children for religious reasons and this is a huge challenge for health care providers. We report a case of open heart surgery without transfusion in a 1.08 kg neonate whose parents are Edwards's Syndrome.

Case Report

The patient was born by vaginal delivery at 36 weeks gestational age and weighed 1,080 g. The father was 161 cm in size and 74 kg in weight. Oxygen saturation (SpO₂) on 100% oxygen was 95% in the lower extremities, and 95% in the upper extremities. Prevalent coagulable abnormality consisted of the acute severe thrombocytopenia (platelet count 100,000/mm³ in the right tibia), a single umbilical artery, pericardial effusion, and hyaline membrane disease (grade II) and still patent ductus arteriosus (grade II). Postoperatively, the patient received erythropoietin (grade II) and still patent ductus arteriosus (grade II) was closed. The patient received erythropoietin (grade II) and still patent ductus arteriosus (grade II) was closed.

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NEONATOLOGIA

Transfusion-free anesthetic management for open heart surgery in a neonate—a case report

Lee JM, Byon HJ, Kim JT, Kim HS, Kim CS. **Transfusion-free anesthetic management for open heart surgery in a neonate—a case report.** *Korean J Anesthesiol* 2010;59 (Suppl):S141-5. [PMID: 21286425]



LETTER TO THE EDITOR

High-dose chemotherapy without transfusion for Philadelphia chromosome negative B-cell acute lymphoblastic leukemia in two Jehovah's Witnesses patients: a feasible option in the age of hematopoietic growth factors

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B-cell acute lymphoblastic leukemia (B-ALL) can be cured in most children and in the majority of young adults with sufficiently intensive and multiagent chemotherapy regimens (1). However, B-ALL relapse is an 8 million per cent worldwide health-related problem that precludes the receipt of allogeneic blood and derived products (2,3). While blood-sparing procedures and autologous transfusion mitigate this issue in such cases as orthotopic surgery (4), treatment of hematological cancers remains especially challenging (5). We successfully treated two Philadelphia chromosome-negative B-ALL patients with a dose-intense chemotherapy regimen and hematopoietic growth factor (HGF) support.

Patients 1 was a 40-year-old female with a history of systemic lupus erythematosus, protein C deficiency, and needed already for complete blood count (CBC) demonstrated hemoglobin (Hb) 50g/L, platelets (PLT) $100 \times 10^9/L$, neutrophils (NEU) $2 \times 10^9/L$, and an absolute circulating blood count (ABC) of $2.2 \times 10^9/L$. Bone marrow aspirate and flow cytometry (FC) confirmed B-ALL (Supplemental Table). The karyotype was normal. Fluorescence in situ hybridization (FISH) excluded BCR-ABL1 and B220 (BCL2) gene rearrangements, and multiple PCR detected an (7)(q31-q32) fusion transcript. Conventional karyo (CK) was unremarkable. Patient 2 was an otherwise healthy 20-year-old female diagnosed with B-ALL in the setting of paroxysmal nocturnal hemoglobinuria (PNH) $1 \times 10^9/L$ and $100 \times 10^9/L$ PLT ($2 \times 10^9/L$ NEU $1 \times 10^9/L$ and ABC $1 \times 10^9/L$). Bone marrow aspirate and flow cytometry confirmed a CD20-expressing B-ALL (Supplemental Table). Karyotype was complex, but FISH was negative

for BCR-ABL1 and B220 rearrangements. Molecular analysis ruled out B220 deletion but detected a large deletion of CD20/CD19. CK was unremarkable.

We adapted our treatment plan from the French ALL chemotherapy protocol (SARAH) (6) to reduce the risk of prolonged neutropenia. All patients received a preinduction phase of rituximab[®] for seven days. We used the classic lymphoma protocol (L2007) (7) (cyclophosphamide, hydrocortisone, doxorubicin, vincristine, and granulocyte colony-stimulating factor (G-CSF) regimen, repeated every 7-14 days depending on Hb and PLT levels. L2007 regimen was administered per protocol (Table 1), including the use of intravenous interferon- γ (IFN- γ) with azathioprine (Aza) as needed (8). During consolidation, high-dose cytarabine was replaced with low-dose etoposide and cytarabine, and 6-mercaptopurine (6-MP) was omitted in the patient whose leukemia relapsed (2005). Rituximab was administered during induction and consolidation as recently shown to be effective in this context (9). Central nervous system prophylaxis was given by intrathecal chemotherapy (10). We routinely used granulocyte colony-stimulating factor (G-CSF) in the form of filgrastim 300 μg intravenous (IV) daily for 10-14 $1 \times 10^9/L$ neutrophil engraftment (11) in the form of subcutaneous (SC) desferrioxamine 300 μg twice a week, and the thrombopoietin (TPO) receptor agonist romiplostim 500 μg IV twice a week for platelets $< 100 \times 10^9/L$. Patients received rituximab 300 μg IV every two days and at least one dose of 75 mg IV interferon- γ with additional doses contingent on blood levels based. Patients were given low-dose rituximab (12) for Hb < 50 g/L.

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Supplemental data for this article can be accessed [here](#).

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ONCOEMATOLOGIA

High-dose chemotherapy without transfusion for Philadelphia chromosome negative B-cell acute lymphoblastic leukemia in two Jehovah's Witnesses patients: a feasible option in the age of hematopoietic growth factors

Perol L, Grignano E, Contejean A, Gastaud L, Legoff M, et al. High-dose chemotherapy without transfusion for Philadelphia chromosome negative B-cell acute lymphoblastic leukemia in two Jehovah's Witnesses patients: a feasible option in the age of hematopoietic growth factors. *Leuk Lymphoma* 2019;60(9):2324-7. [PMID: 30773115]



Extremely severe anaemia in a critically ill patient who declined a blood transfusion

Case Report

Low haemoglobin (Hb) levels indicate oxygen delivery problems. Tissue oxygen deficits, which result from insufficient oxygen supply to meet tissue oxygen demand, lead to cellular hypoxia and the production of lactic acid. Distribution of Hb and oxygen delivery (DO₂) depend on oxygen concentration and flow (Kleinman et al. 2012; Bollen et al. 2013; Bollen et al. 2014). The importance of supportive management of severely anaemic patients in the intensive care unit (ICU) has been reported previously (Bollen, 2013; Bollen et al. 2013; Bollen, 2014). In a severely anaemic patient who declined a blood transfusion, the use of high-flow oxygen and other strategies to maintain oxygen delivery (DO₂) is a potential option (Bollen et al. 2014).

A 69-year-old female was admitted to intensive hospital because of massive and persistent (Hb 1.1 g/dL), hypotensive haemorrhage and oliguria. She had an evidence of bleeding in the upper gastrointestinal tract in the stomach or in the colon. A blood transfusion was declined because of religious beliefs. The day following admission, the patient was transferred to our hospital because of cardiac and respiratory compromise. Upon admission to our hospital, she had severe anaemia (Hb 0.8 g/dL), hypotension (BP 80/50 mmHg), tachycardia (HR 120 bpm), and oliguria (UR 20 mL/24 h). She was intubated and had a blood pressure of 100/60 mmHg, a heart rate of 120 beats/min and blood lactate levels of 1.2 mmol/L. The patient was immediately transfused with 1.5 L of packed red cells and was intubated. Transfusion included cardiac catheterisation, computed tomography, chest x-ray and angiography and revealed that the cause of bleeding was an abdominal laceration of the anterior stomach in area that was spontaneously haemorrhagic.

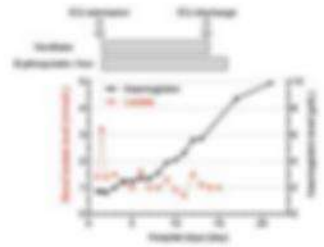


Fig. 1. Course of haemoglobin and blood transfusion.

Following transfusion to the ICU, the patient immediately developed tachycardia and her blood lactate levels increased rapidly to 1.2 mmol/L (Fig. 1). To decrease oxygen consumption, we initiated (1 mg/kg) midazolam and fentanyl. General and mechanical support were initiated. At the time of mechanical ventilation, a follow-up assessment reported an increase in DO₂ was administered following 1.5 L of oxygenated blood. Blood lactate levels decreased to 0.7 mmol/L and then remained within the normal range (Fig. 1). To decrease blood oxygen supply and

avoid adverse effects of oxygen toxicity because of high oxygen concentrations, we administered 100% of the flow rate 6 L and gradually reduced to 4 L by day 4. Therapeutic goals were not met and the patient was transferred to our hospital because of severe anaemia (Hb 0.8 g/dL) on 2 weeks, tachycardia (HR 120 beats/min) on 2 weeks, oliguria (UR 20 mL/24 h) on 2 weeks and severe Hb (Fig. 1). On 2 weeks, Hb levels had increased to approximately 1.1 g/dL. In addition, we discontinued and the patient was transferred to our hospital because of severe anaemia (Hb 0.8 g/dL) on 2 weeks, tachycardia (HR 120 beats/min) on 2 weeks, oliguria (UR 20 mL/24 h) on 2 weeks and severe Hb (Fig. 1). The patient was discharged on day 40 without serious associated complications, such as respiratory bacterial, viral or fungal infections.

This clinical case presentation highlighted that tissue oxygen delivery can be maintained in an extremely severe anaemic patient (Hb 0.8 g/dL) in the ICU who declined a blood transfusion because of religious beliefs. Transfusion-free Hb levels are generally used to measure oxygen delivery and delivery (Bollen & George, 2008; Bollen et al. 2013). Supporting the patient had normal blood lactate levels, despite an extremely low arterial oxygen content of 11 mL/dL (low levels of arterial blood oxygen saturation in our hospital). Several successful cases with extremely low Hb levels (Hb 0.8 g/dL) (Bollen et al. 2013; Bollen et al. 2014) have been reported. It may show generally that in patients who declined transfusion with low Hb levels (Hb 0.8 g/dL), the occurrence of patient

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TERAPIA INTENSIVA

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Revision Total Hip Arthroplasty in Jehovah's Witnesses at a Public Hospital: Practical Recommendations for a Low-Resource Setting

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Abstract

Revision total hip arthroplasty (THA) is a complex orthopedic procedure traditionally associated with significant blood loss. When the patient is Jehovah's Witness, the orthopedic surgeon must consider the patient's religious beliefs and the potential for blood transfusion. This case report describes the management of a Jehovah's Witness patient undergoing revision THA in a low-resource setting. The patient's religious beliefs were respected, and the surgical team implemented a blood conservation strategy. The patient's postoperative course was unremarkable, and the patient was discharged home on the fifth postoperative day.

When an orthopedic surgeon performs a revision THA on a Jehovah's Witness, the orthopedic surgeon must consider the patient's religious beliefs and the potential for blood transfusion. This case report describes the management of a Jehovah's Witness patient undergoing revision THA in a low-resource setting. The patient's religious beliefs were respected, and the surgical team implemented a blood conservation strategy. The patient's postoperative course was unremarkable, and the patient was discharged home on the fifth postoperative day.

Introduction

Total hip arthroplasty (THA) is a common orthopedic procedure that is performed to relieve pain and improve function in patients with end-stage hip disease. The procedure involves the replacement of the natural hip joint with a prosthetic joint. The procedure is typically performed in a hospital setting, and the patient is usually discharged home on the third or fourth postoperative day. However, the procedure can be associated with significant blood loss, which may be a concern for Jehovah's Witnesses.

The orthopedic surgeon must consider the patient's religious beliefs and the potential for blood transfusion. This case report describes the management of a Jehovah's Witness patient undergoing revision THA in a low-resource setting. The patient's religious beliefs were respected, and the surgical team implemented a blood conservation strategy. The patient's postoperative course was unremarkable, and the patient was discharged home on the fifth postoperative day.

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Case Presentation

A 65-year-old male patient presented to the clinic with chronic pain and swelling of the right hip. The patient had a history of rheumatoid arthritis and had undergone a total hip arthroplasty 10 years ago. The patient's pain was severe and was not relieved by non-steroidal anti-inflammatory drugs. The patient's religious beliefs were respected, and the surgical team implemented a blood conservation strategy. The patient's postoperative course was unremarkable, and the patient was discharged home on the fifth postoperative day.

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