

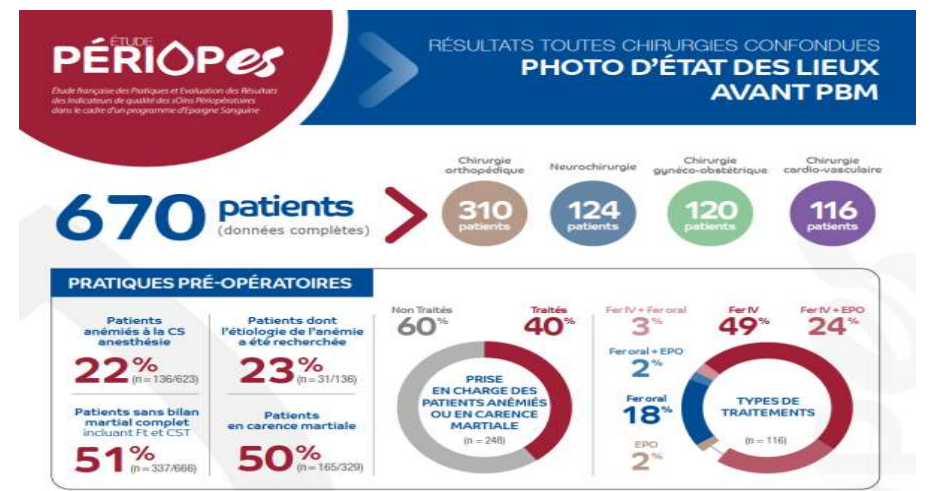


Est-il encore acceptable de ne pas faire de PBM?

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Conflits d'intérêts

Pfizer

Vifor Pharma

Heron Pharmaceuticals

Halyard

Bbraun

Pajunk

Gamida

Micrel

GE Medical

Grünenthal

Honorarium

Honorarium

Honorarium

Honorarium

Honorarium

Consulting

Consulting

Consulting

Honorarium

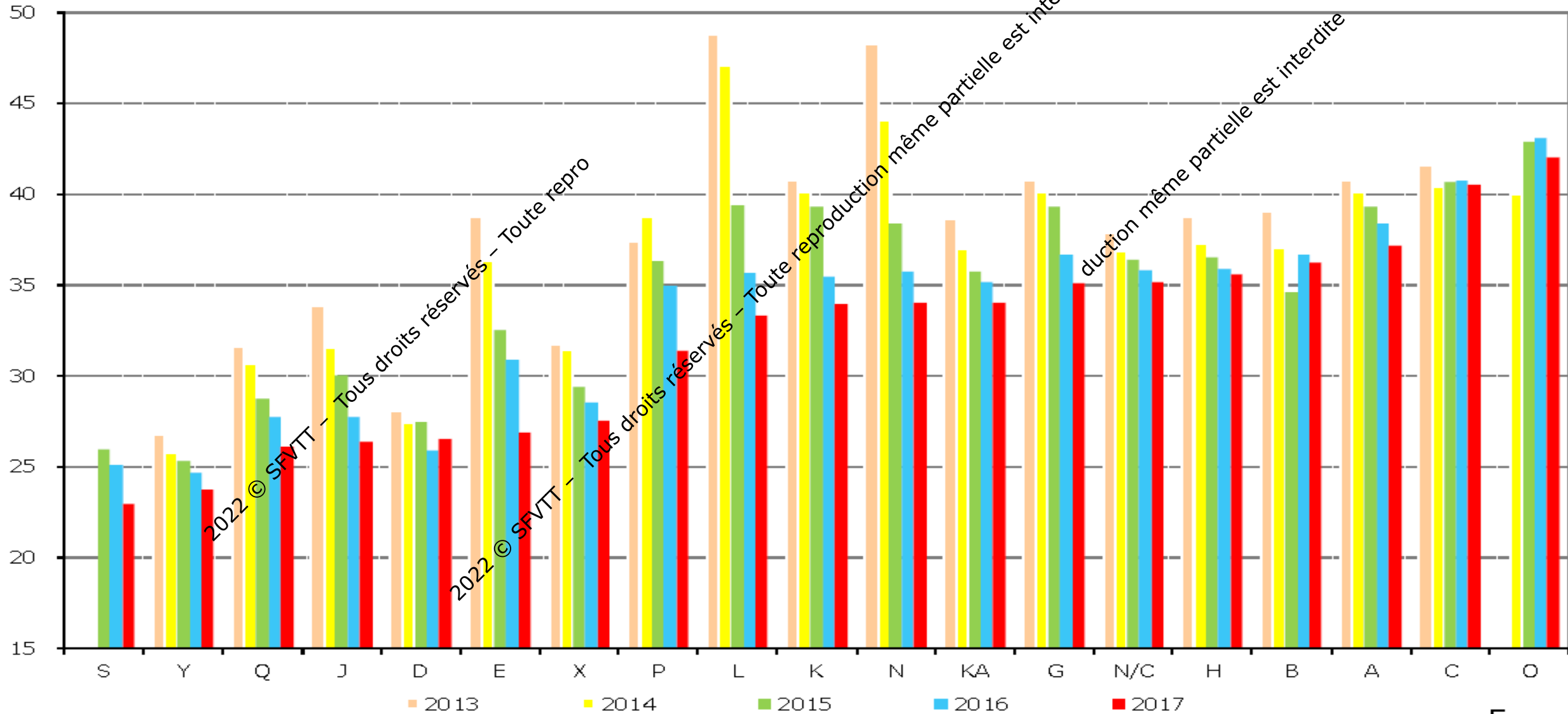
Honorarium





Red Cell issues per 1,000 pop. continue to decline in all countries except one

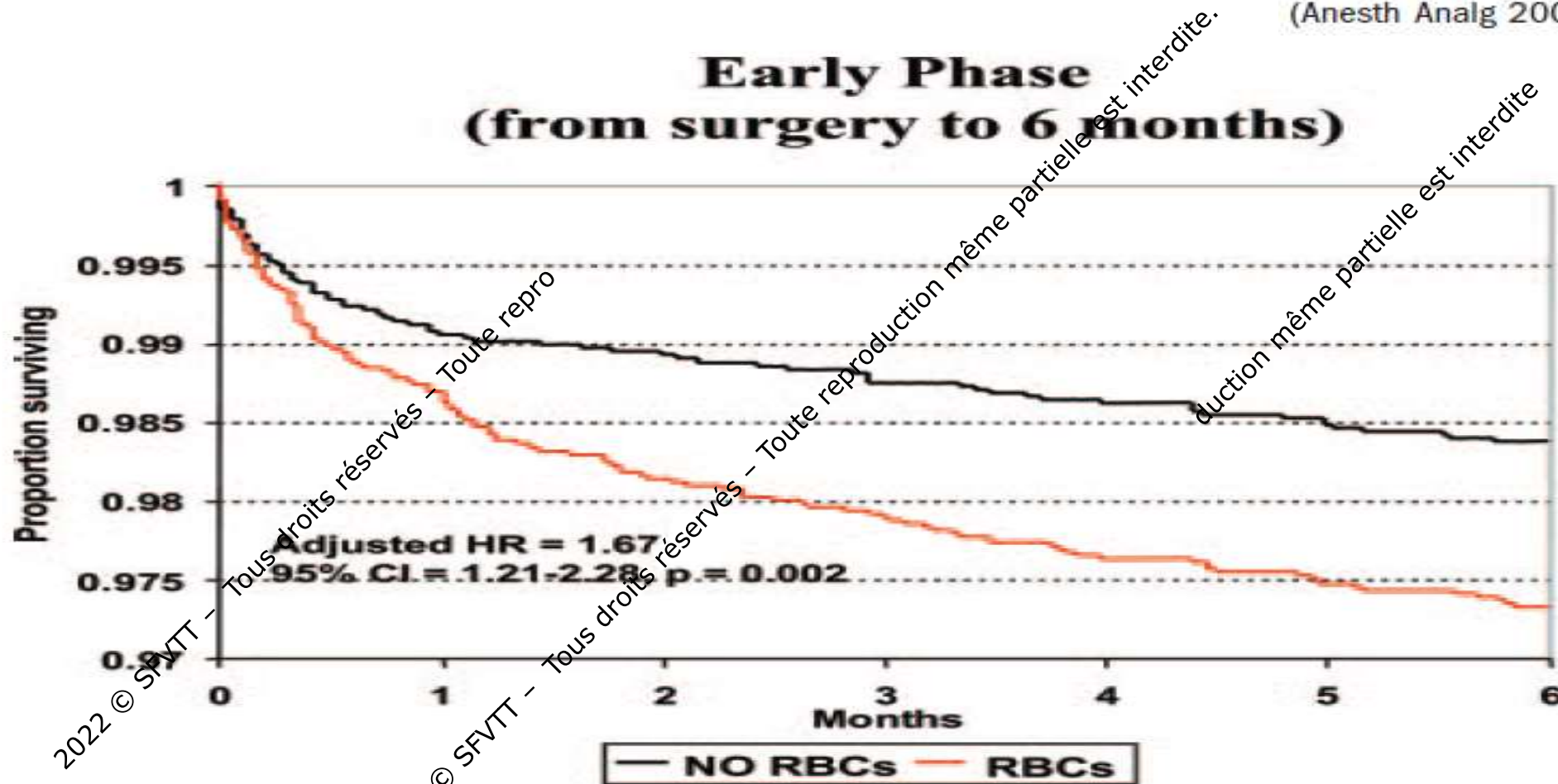
Annual number of RBC units issued per 1,000 population



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La transfusion sanguine est délétère

(Anesth Analg 2009;108:1741-6)



All patients			
Time period	Adjusted HR	95% CI	P
Surgery to 6 mo	→ 1.67	1.21-2.28	0.002
6 mo to 5 yr	1.06	0.91-1.24	0.431
Overall	1.16	1.01-1.33	0.035

ÉTUDE PÉRIOPes

Étude française des Pratiques et Evaluation des Résultats des Indicateurs de qualité des SOAs Périsopératoires dans le cadre d'un programme d'Épargne Sanguine

RÉSULTATS TOUTES CHIRURGIES CONFONDUES PHOTO D'ÉTAT DES LIEUX AVANT PBM

670 patients
(données complètes)



PRATIQUES PRÉ-OPÉRATOIRES

Patients anémisés à la CS anesthésie
22%
(n = 136/623)

Patients dont l'étiologie de l'anémie a été recherchée
23%
(n = 31/136)

Patients sans bilan martial complet incluant Ft et CST
51%
(n = 337/666)

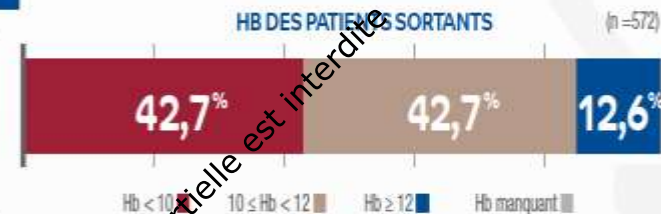
Patients en carence martiale
50%
(n = 165/329)



PRATIQUES POST-OPÉRATOIRES

Patients anémisés traités par fer IV
68%
(n = 17/99)

Patients en carence martiale traités par fer IV
N/A*



TRANSFUSIONS

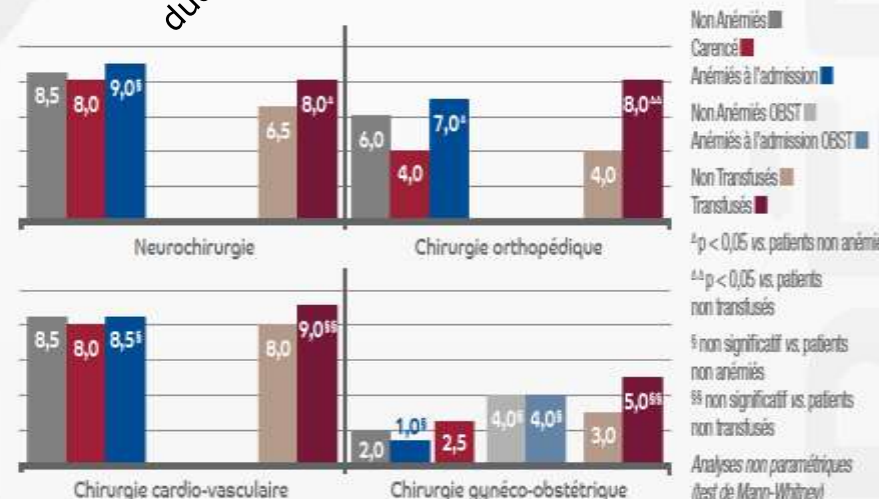
Taux de transfusion péri-op
16%
(n = 104/670)

Part des transfusions unitaires**
26%
(n = 38/145)

* Non applicable, base de patient trop faible

** Parmi tous les épisodes transfusionnels

DMS - MÉDIANE (JOURS)



[†]p < 0,05 vs. patients non anémisés

^{††}p < 0,05 vs. patients non transfusés

[§] non significatif vs. patients non anémisés

^{§§} non significatif vs. patients non transfusés

Analyses non paramétriques (test de Mann-Whitney)

Daily practice far from recommendations

Type de chirurgie	Patients transfusés (n)	Ratio prescriptions per /post-op	Nb de CGR /prescription	Hb pré-T post-op (g/dL)	Hb post-T post-op (g/dL)	Transfusions « justifiées » HAS (%)
Fracture ESF	139	5/156	4 [1-2]	8 [7,6-8,6]	9,6 [9,2-10,1]	22 %
Résections grêle/colon	16	9/17	2 [1-2]	8,3 [7,1-8,5]	9,8 [8,4-11]	24 %
Néphrectomies	14	11/7	2 [2-4]	8 [7,6-8,5]	10,4 [9,9-11]	27 %
Anévrisme aorte abdominale	15	9/11	2 [2-3]	8,3 [7,8-8,5]	10 [9,4-10,6]	45 %

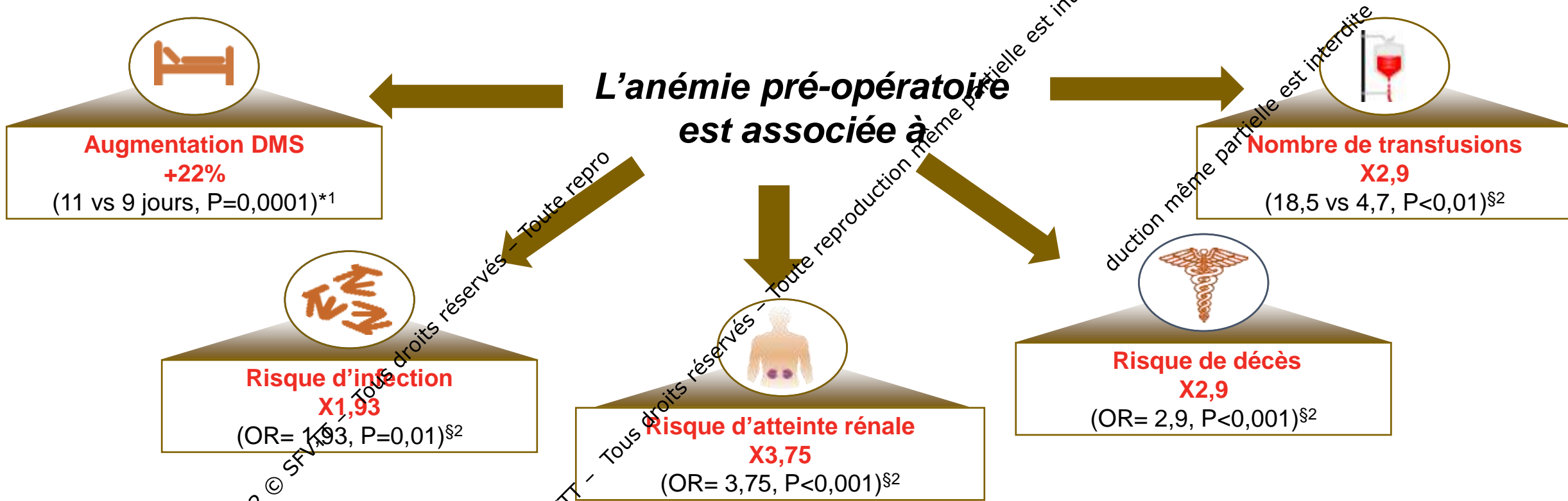
Education for transfusion



Fig. 2. Single-unit posters used by Fremantle Hospital.

Preoperative Hb < 13 g/dL = Risk Factor of transfusion

L'anémie pré-opératoire a un impact négatif sur les indicateurs de performance de la qualité et de la sécurité des soins



* Retrospective single-centre cohort study of consecutive patients >18 years undergoing non-cardiac surgery between March 2003 and June 2006 (N= 7,759). Shown are the propensity-matched values for variables that are potential confounders in the relationship between anaemia and postoperative mortality (N=2,090).¹

§ Systematic review and meta-analysis of observational studies exploring associations between preoperative anaemia and postoperative outcomes (24 studies N=949,445).²

† Retrospective cohort study of major non-cardiac surgery in 2008 (a prospective validated outcomes registry from 211 hospitals worldwide, N=227,425). OR presented had an extended adjustment for a large number of clinically relevant variables.³

1. Beattie WS et al. Anesthesiology. 2009;110(3):574–81

2. Fowler AJ et al. Br J Surg. 2015;102(11):1314–24

3. Musallam KM et al. Lancet. 2011;378:1396–1407

Postoperative anaemia and patient-centred outcomes after major abdominal surgery: a retrospective cohort study

British Journal of Anaesthesia, 129 (3): 346–354 (2022)

Paul S. Myles^{1,2,*}, Toby Richards³, Andrew Klein⁴, Erica M. Wood^{5,6}, Sophie Wallace^{1,2}, Mark A. Shulman^{1,2}, Catherine Martin⁷, Rinaldo Bellomo^{8,9}, Tomás B. Corcoran¹⁰, Philip J. Peyton^{9,11}, David A. Story⁹, Kate Leslie^{2,9,12}, Andrew Forbes⁷, and RELIEF Trial Investigators[†]

Table 4 More marked anaemia (haemoglobin <100 g L⁻¹) Day 3; estimated proportion with severe anaemia (with multiple imputation) is 31.2%. Adjusted for liberal fluid, ASA physical status, sex, age, Charlson score, aspirin use, baseline haemoglobin, proposed surgery, planned ICU or HDU admission, duration of surgery. QoR=quality of recovery; RR=risk ratio; 95% CI, 95% confidence interval; IQR, inter-quartile range.

Factor	No marked anaemia, day 3 (%)	Marked anaemia, day 3 (%)	RR (95% CI)	P-value
Disability to 90 days or death	13.2	24.8	1.33 (1.09–1.62)	0.005
Hospital readmission within 3 months	19.8	29.2	1.24 (1.05–1.47)	0.01
QoR-15 score Day 3, median (IQR)	110 (94–124)	100 (81–115)	Difference in medians –5.9 (–8.6 to –3.2)	<0.001

2893 Adult Patients

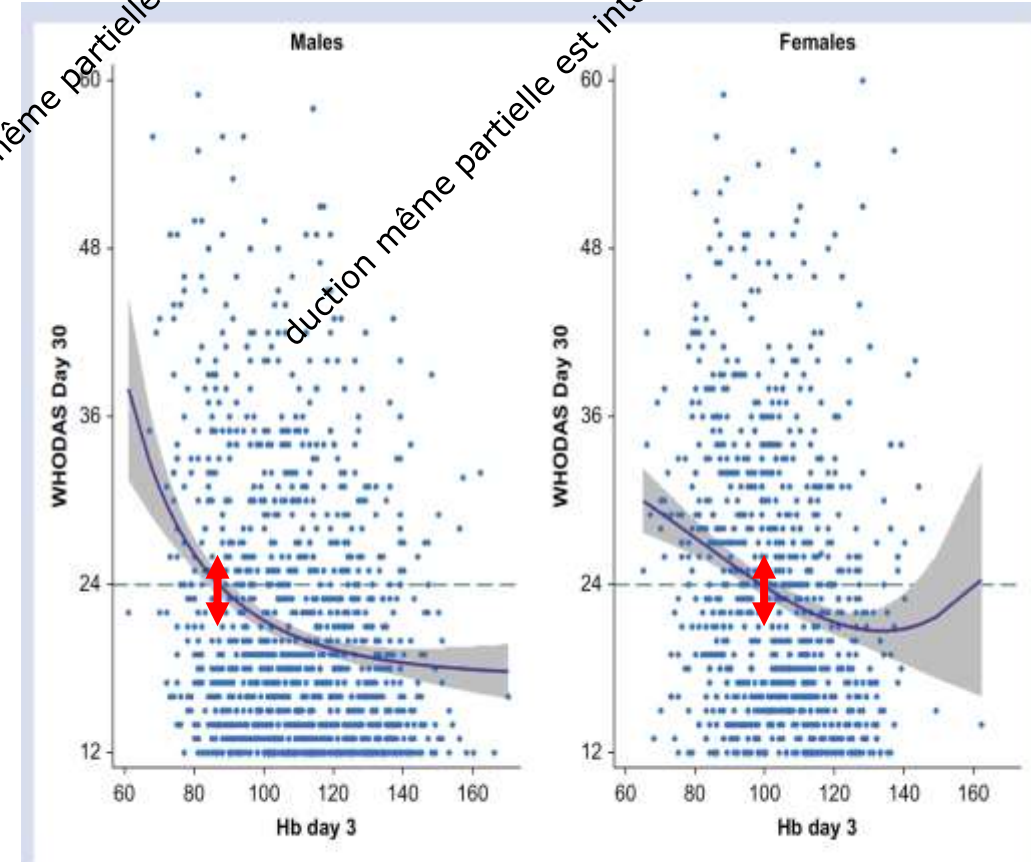


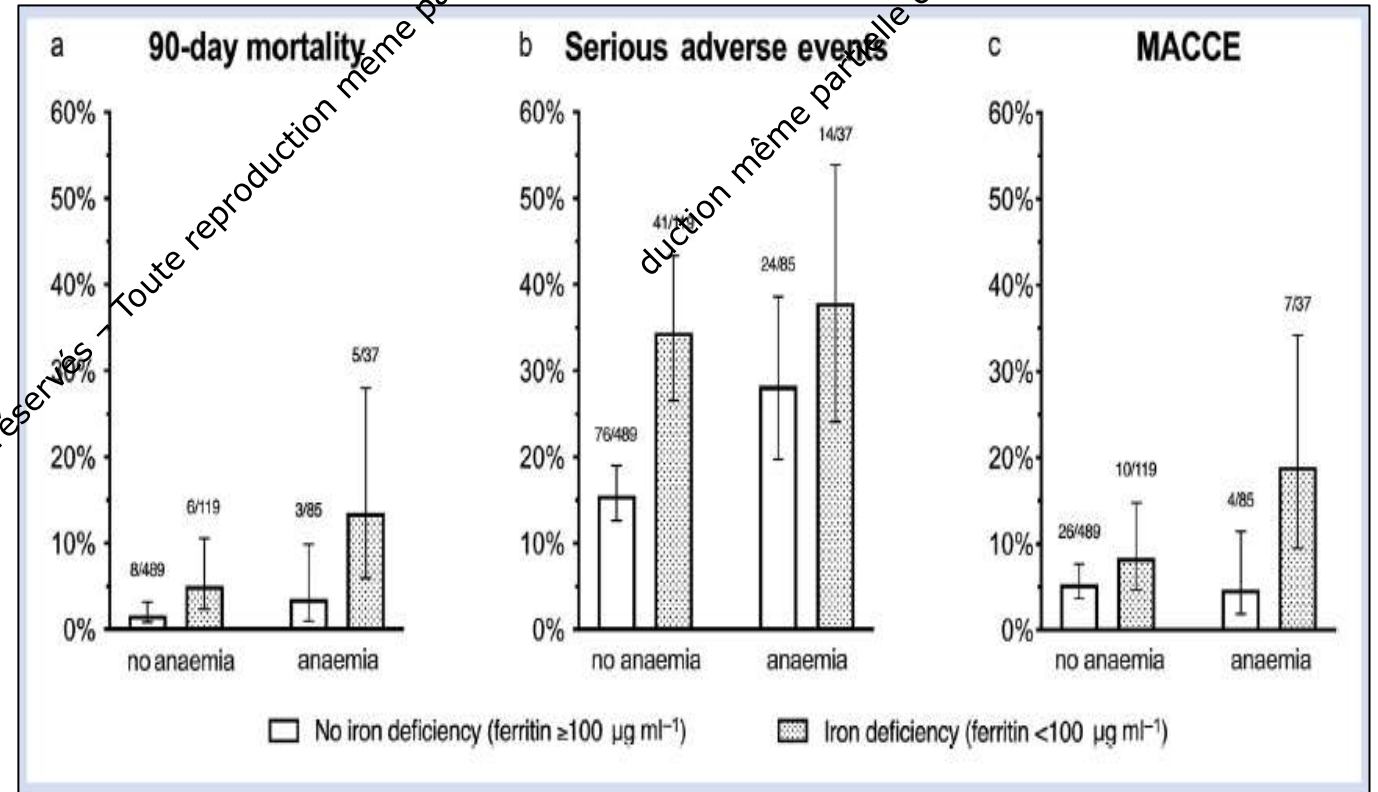
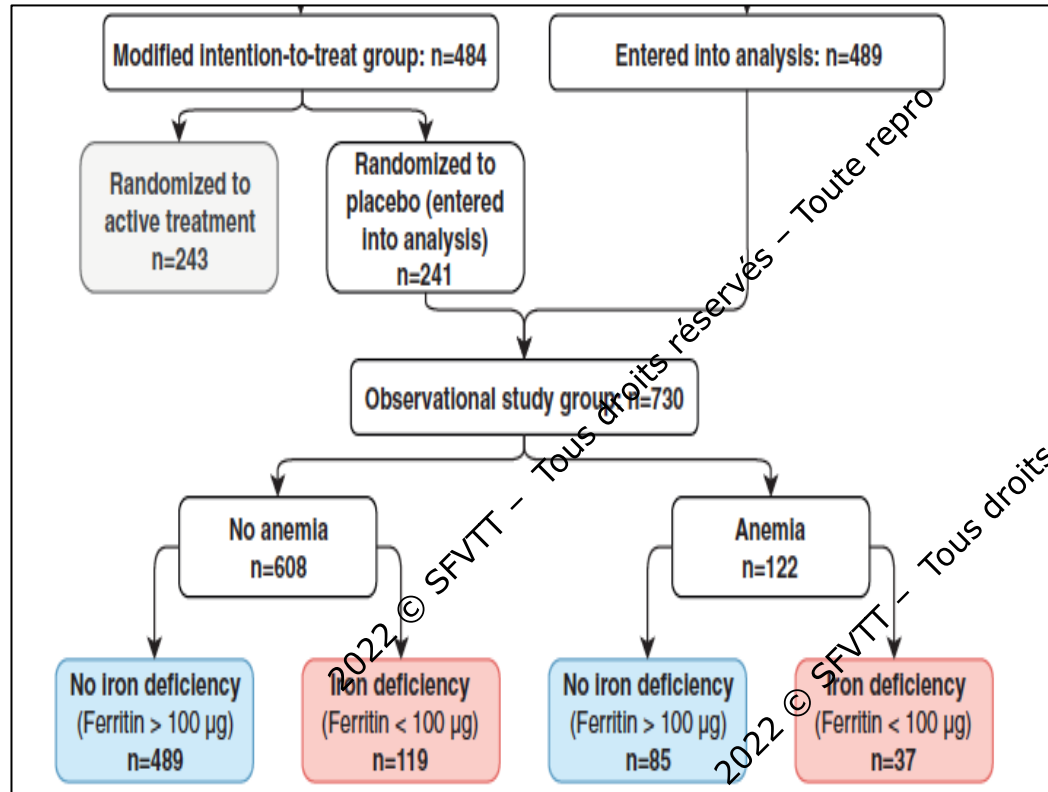
Fig 2. The relationship between the haemoglobin (Hb) concentration measured on Day 3 and the WHODAS score measured on Day 30 after surgery for both males and females, using fractional polynomials. The shaded band is the 95% confidence interval (CI). In males, a WHODAS of 24 is crossed when Hb <85 mg L⁻¹ and in females Hb <100 mg L⁻¹. WHODAS, WHO Disability Assessment Schedule 2.0.

Conclusions: Postoperative anaemia is common and is independently associated with poor outcomes after surgery. Optimal prevention and treatment strategies need to be investigated.

Iron deficiency is associated with higher mortality in patients undergoing cardiac surgery: a prospective study

Julian Rössler¹, Felix Schoenrath^{2,3}, Burkhardt Seifert⁴, Alexander Kaserer¹, Gabriela H. Spahn¹, Volkmar Falk^{2,3,5,6} and Donat R. Spahn^{1,*}

British Journal of Anaesthesia, 124 (1): 25–34 (2020)





Safety and efficacy of intravenous iron therapy in reducing requirement for allogeneic blood transfusion: systematic review and meta-analysis of randomised clinical trials

OPEN ACCESS

BMJ 2013;347:f4822

Edward Litton *staff specialist clinical senior lecturer*^{1,2}, Jing Xiao *registrar*¹, Kwok M Ho *staff specialist associate professor*^{1,3}

72 studies

10.605 patients

-Delta Hb 6,5[4,9-8,2] g/L

-Transfusion 0,74[0,62-0,88]

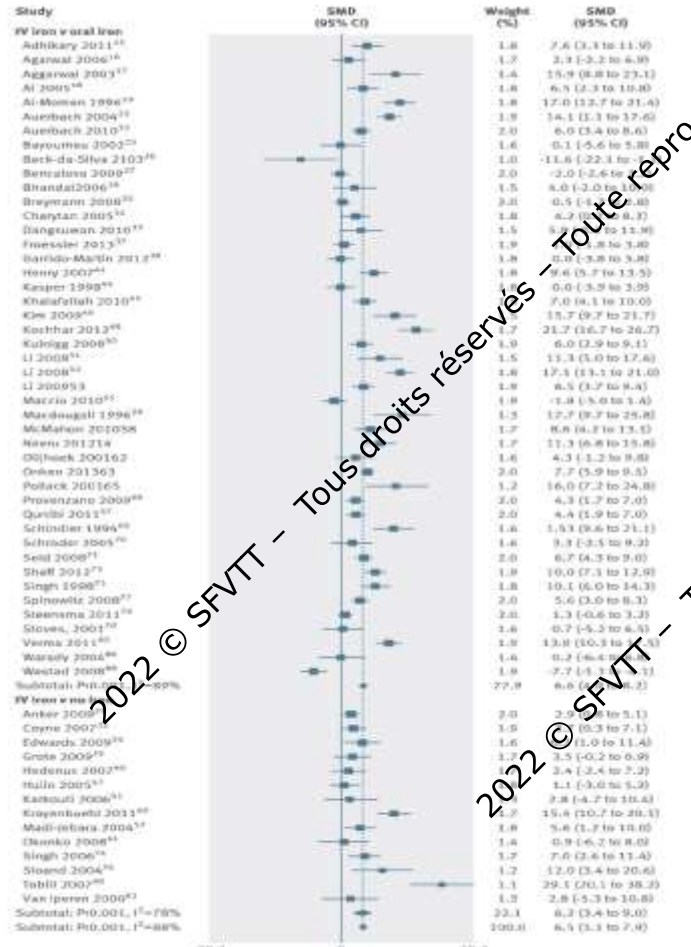


Fig 2 Standardised mean difference in haemoglobin (g/L) in patients who received intravenous iron compared with oral iron and no iron. Weights are from random effects analysis

Study	No of events/total	
	Treatment	Control
IV iron v oral iron		
Al 2005 ¹⁸	0/45	1/45
Auerbach 2004 ²³	9/78	10/79
Auerbach 2010 ²⁵	41/116	48/122
Bayoumeu 2005 ²⁴	0/24	1/23
Breyman 2008 ²⁸	1/227	0/117
Danskron 2010 ²³	5/22	14/22
Fressler 2013 ³⁰	1/101	3/97
Guyard-Martin 2012 ³¹	20/54	27/53
Henry 2007 ³²	11/63	20/124
Kochhar 2012 ⁴⁰	0/50	1/50
Meyer 1996 ³³	0/21	2/21
Steenama 2011 ⁷⁵	20/164	43/326
Weisbach 1999 ⁸⁷	6/30	5/60
Westad 2008 ⁸⁰	4/59	11/70
Subtotal: P=0.45, I²=0%	118/1054	186/1209
IV iron v no iron		
Edwards 2009 ⁸³	0/34	2/26
Hedenus 2002 ⁸⁵	2/33	1/34
Karkouti 2006 ⁸¹	4/21	4/10
Kim 2007 ⁸⁶	12/30	29/45
Madi-Jebara 2004 ⁸⁷	17/80	9/40
Na 2011 ⁹⁰	11/54	29/54
Pedrazzoli 2008 ⁸⁴	2/73	5/76
Serrano-Tienas 2011 ⁷²	33/100	41/100
Subtotal: P=0.33, I²=14%	81/425	120/385
Subtotal: P=0.34, I²=9%	199/1479	306/1594

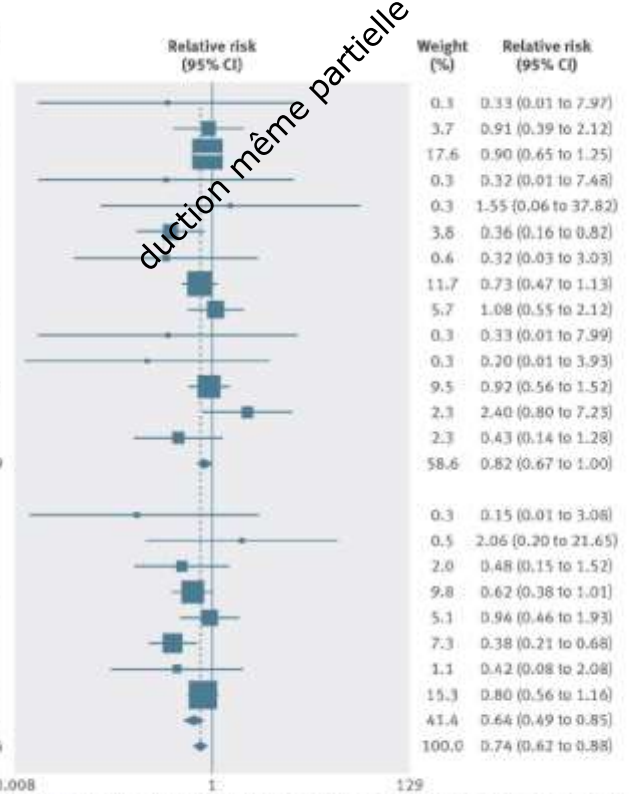
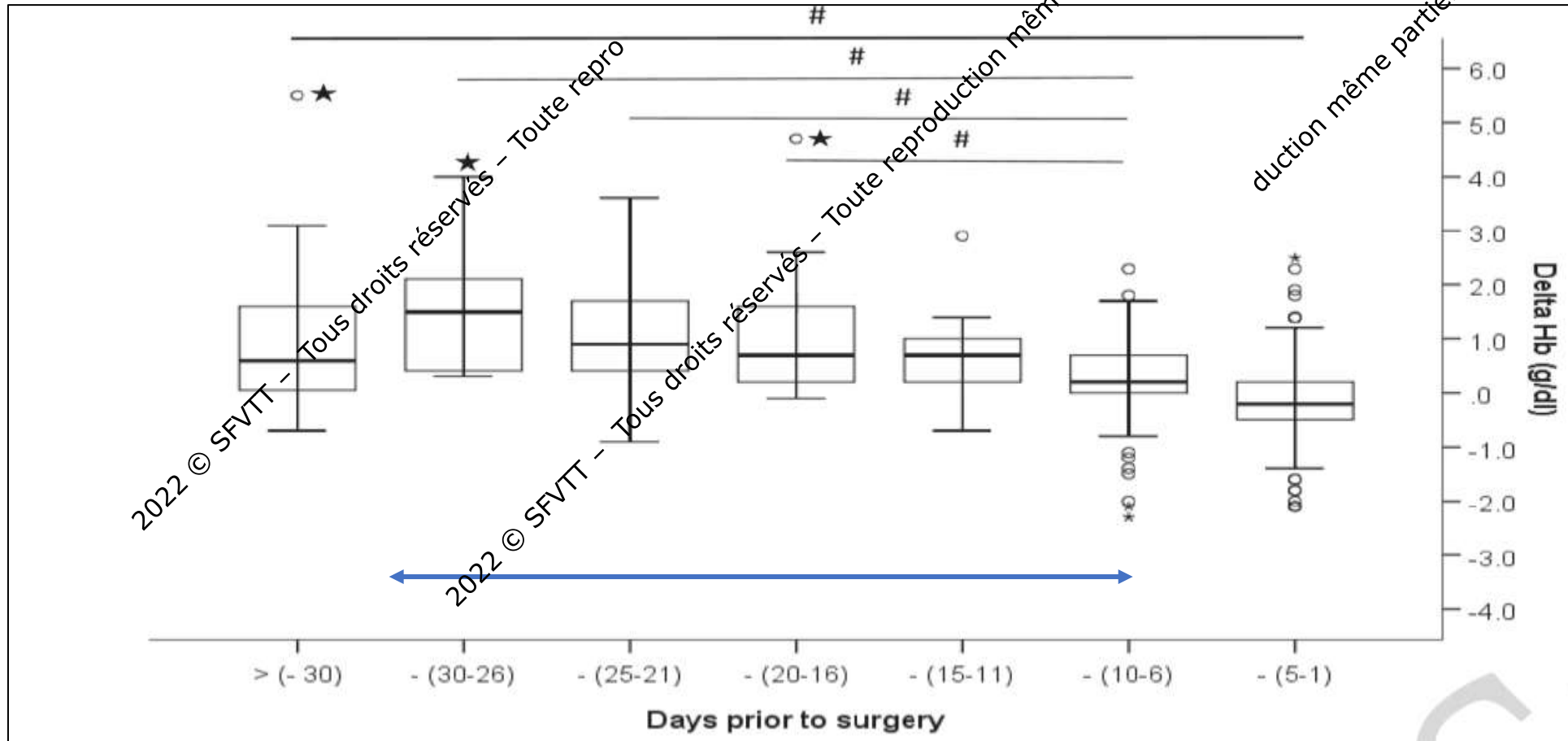


Fig 3 Risk of red blood cell transfusion in patients who received intravenous iron compared with oral iron and no iron. Weights are from random effects analysis

The impact of timing of intravenous iron supplementation on preoperative haemoglobin in patients scheduled for major surgery

Blood Transfus 2022; 20: 188-197

Vanessa Neef¹, Peter Baumgarten^{2,3}, Stephanie Noone¹, Florian Piekarski¹, Chris Triphaus¹, Adina Kleinerüschkamp⁴, Philipp Helmer⁴, Leila Messroghli¹, Kai Zacharowski¹, Suma Choorapoikayil¹, Patrick Meybohm^{1,4}



Preoperative Epoetin- α with Intravenous or Oral Iron for Major Orthopedic Surgery

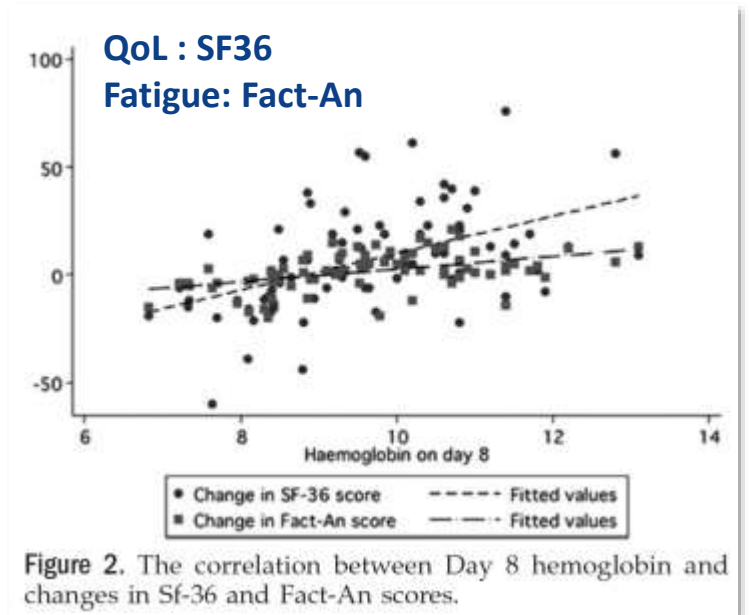
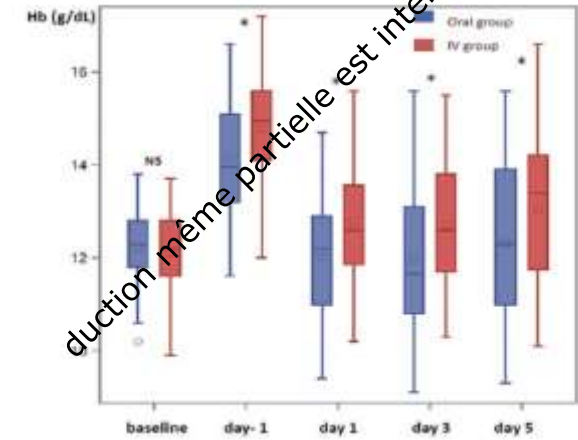
ANESTHESIOLOGY 2018

A Randomized Controlled Trial

Philippe Biboulet, M.D., Sophie Bringuier, Pharm.D., Ph.D., Pierre Smelevitch, M.D., Thibault Loupec, M.D., Caroline Thuile, M.D., Mathieu Pencole, M.D., Guillaume Maissiat, M.D., Gaëtan Dangelser, M.D., Xavier Capdevila, M.D., Ph.D.

Table 2. Results the Day before Surgery

	Oral Group, n = 50	IV Group, n = 50	P Value
Iron received, tablets or mg	52 (42–56)	1,000 (1,000–1,000)	—
Duration of iron treatment, day	26 (22–28)	—	—
Ratio prescribed iron/received	1 (0.95–1)	1 (1–1)	< 0.001
Morisky questionnaire	0 (0–1)	—	—
Adherence to treatment VAS	10 (9–10)	—	—
Pichot's scale	9.5 (4.5–15)	9 (4–14)	0.848
Fitness VAS	6 (5–5)	6.5 (5–8)	0.389
Digestive complications	2 (5)	1 (2)	< 0.0001
Blood assessment at day -1			
Hemoglobin, g/dl	13.9 (13.2–15.1)	14.1 (14.1–15.6)	0.017
Increase in hemoglobin	1.9 (1.4–2.5)	2.6 (2.1–3.2)	< 0.001
Hematocrit, %	43.1 (40.9–46.8)	44.7 (42.3–47)	0.043
Mean cell volume, μm^3	95 (92–99)	95 (91–99)	0.840
Ferritin level, $\mu\text{g/l}$	64.5 (44–107)	325 (217–476)	< 0.001
Serum iron, $\mu\text{mol/l}$	10.2 (6.8–21.9)	9.3 (6.2–11.3)	0.095
Transferrin, g/l	2.5 (2.3–2.7)	2 (1.8–2.3)	< 0.001
Transferrin saturation, %	15.5 (11–34)	17 (13–21)	0.837
Erythrocyte mass, ml	1,952 (1,823–2,137)	2,015 (1,833–2,169)	0.514
Produced erythrocyte mass, ml	298 (217–357)	353 (294–450)	< 0.001

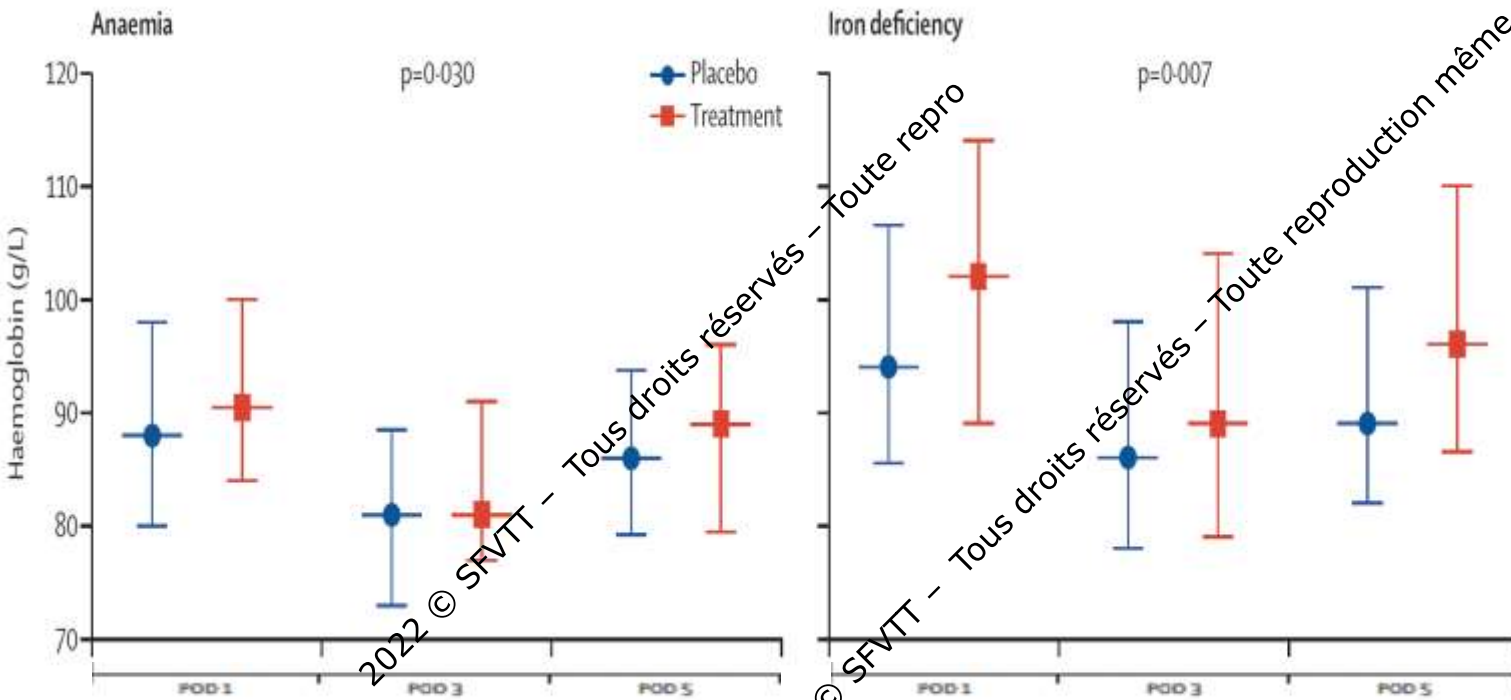
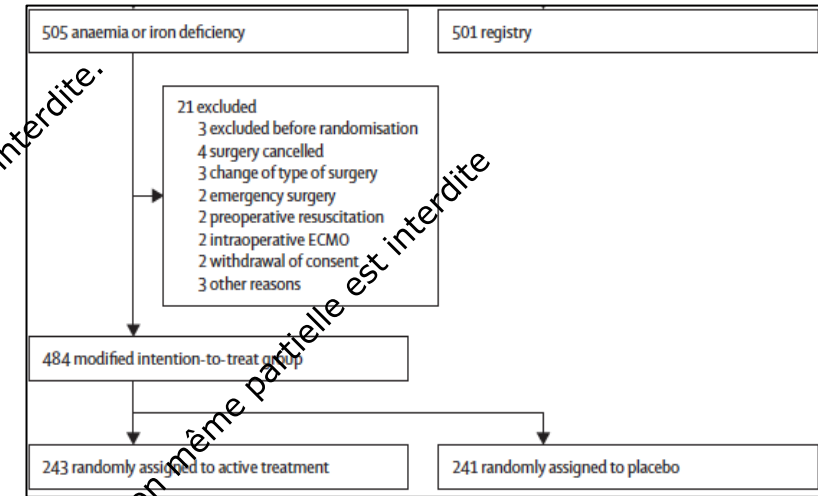


Conlon Anesth Analg 2008

Figure 2. The correlation between Day 8 hemoglobin and changes in Sf-36 and Fact-An scores.

Effect of ultra-short-term treatment of patients with iron deficiency or anaemia undergoing cardiac surgery: a prospective randomised trial

Donat R Spahn*, Felix Schoenrath*, Gabriela H Spahn, Burkhardt Seifert, Philipp Stein, Oliver M Theusinger, Alexander Kaserer, Inga Hegemann, Axel Hofmann, Francesco Maisano, Volkmar Falk



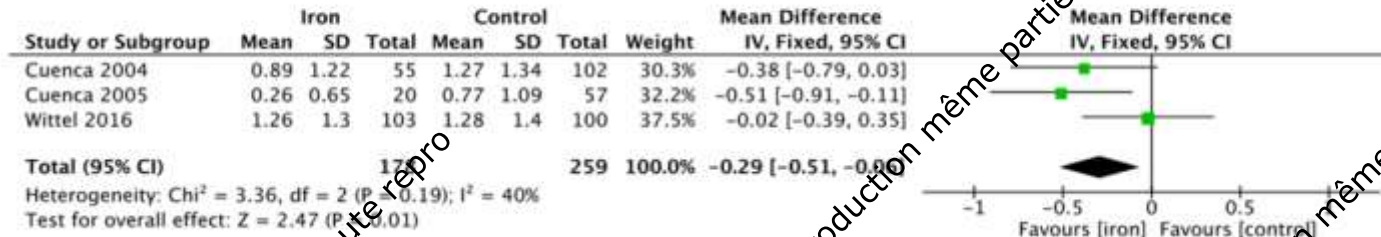
Interpretation An ultra-short-term combination treatment with intravenous iron, subcutaneous erythropoietin alpha, vitamin B12, and oral folic acid reduced RBC and total allogeneic blood product transfusions in patients with preoperative anaemia or isolated iron deficiency undergoing elective cardiac surgery.

Total units of allogeneic blood products, first 7 days	0.038
Mean (SD)	1.9 (4.5)	2.4 (5.0)	..
Median (IQR)	0 (0-2)	1 (0-3)	..
N of patients (%)	111 (46%)	129 (54%)	..
RBC units transfused in day 0 to POD 90	0.018
Mean (SD)	1.7 (3.2)	2.3 (3.3)	..
Median (IQR)	0 (0-2)	1 (0-3)	..
Distribution, n (%)			
0	129 (53%)	107 (44%)	..
1	28 (12%)	23 (10%)	..
2	37 (15%)	39 (16%)	..
3	13 (5%)	25 (10%)	..
4	12 (5%)	9 (4%)	..
≥5	24 (10%)	38 (16%)	..

The Efficacy and Safety of Intravenous Iron in Geriatric Hip Fracture Surgeries: A Systematic Review and Meta-Analysis

Mu-Min Cao^{1,2,3,4} · Jia-Yu Chi² · Yuan-Wei Zhang^{1,2,3,4} · Ren-Wang Sheng² · Wang Gao^{1,2,3,4} · Ya-Kuan Zhao^{1,2,3,4} · Yun-Feng Rui^{1,2,3,4}

B Blood transfusion volume



Nosocomial infection

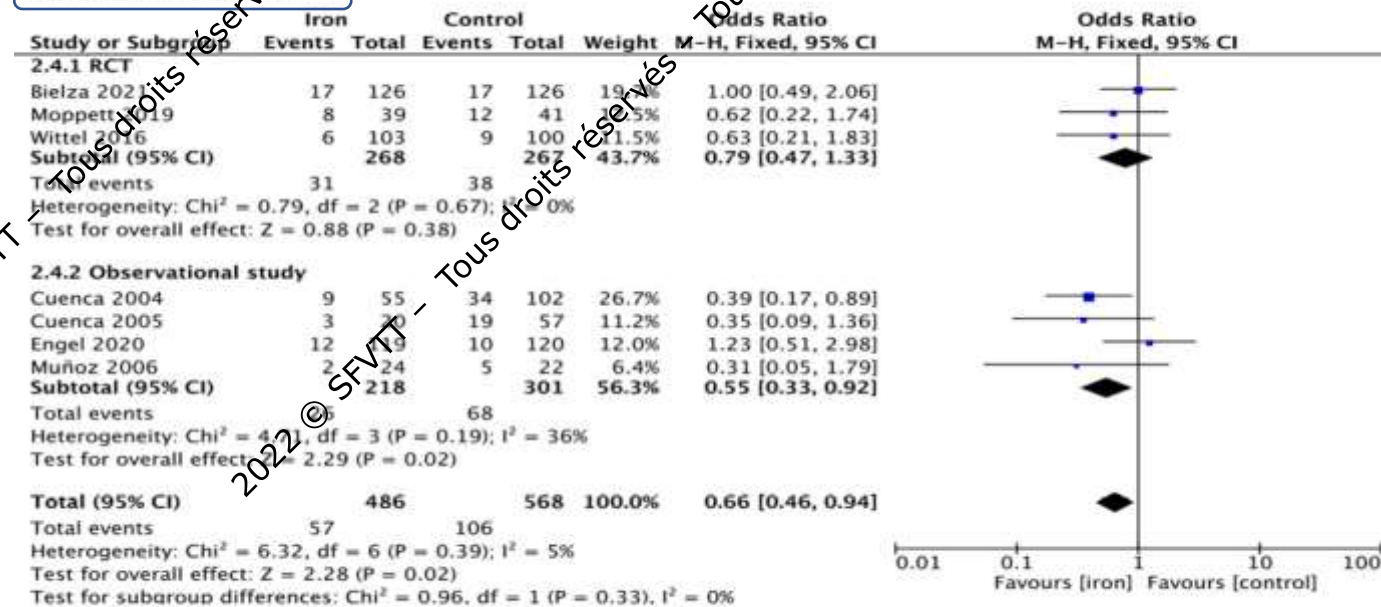


Fig. 6 Forest plot diagram showing nosocomial infection

Effect of tranexamic acid on surgical bleeding: systematic review and cumulative meta-analysis

OPEN ACCESS

Katharine Ker *research fellow*, Phil Edwards *senior lecturer*, Pablo Perel *clinical senior lecturer*, Haleema Shakur *senior lecturer*, Ian Roberts *professor of epidemiology*

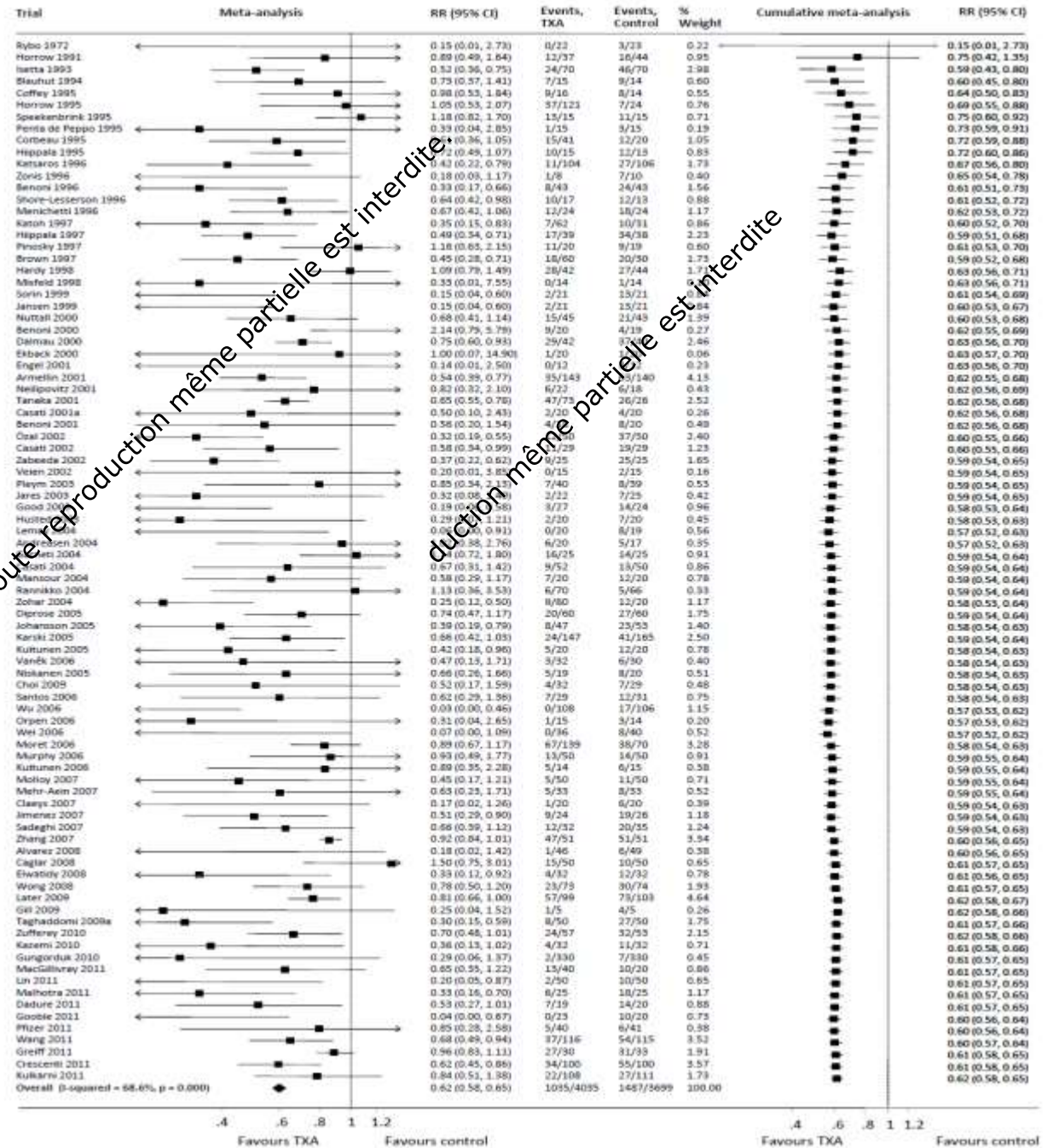
Clinical Trials Unit, London School of Hygiene and Tropical Medicine, London WC1E 7HT, UK

BMJ 2012



95 RCT (n=7838)
Transfusion risk reduction
n=38%

OR = 0.62 [0.58 to 0.65]; p < 0.001

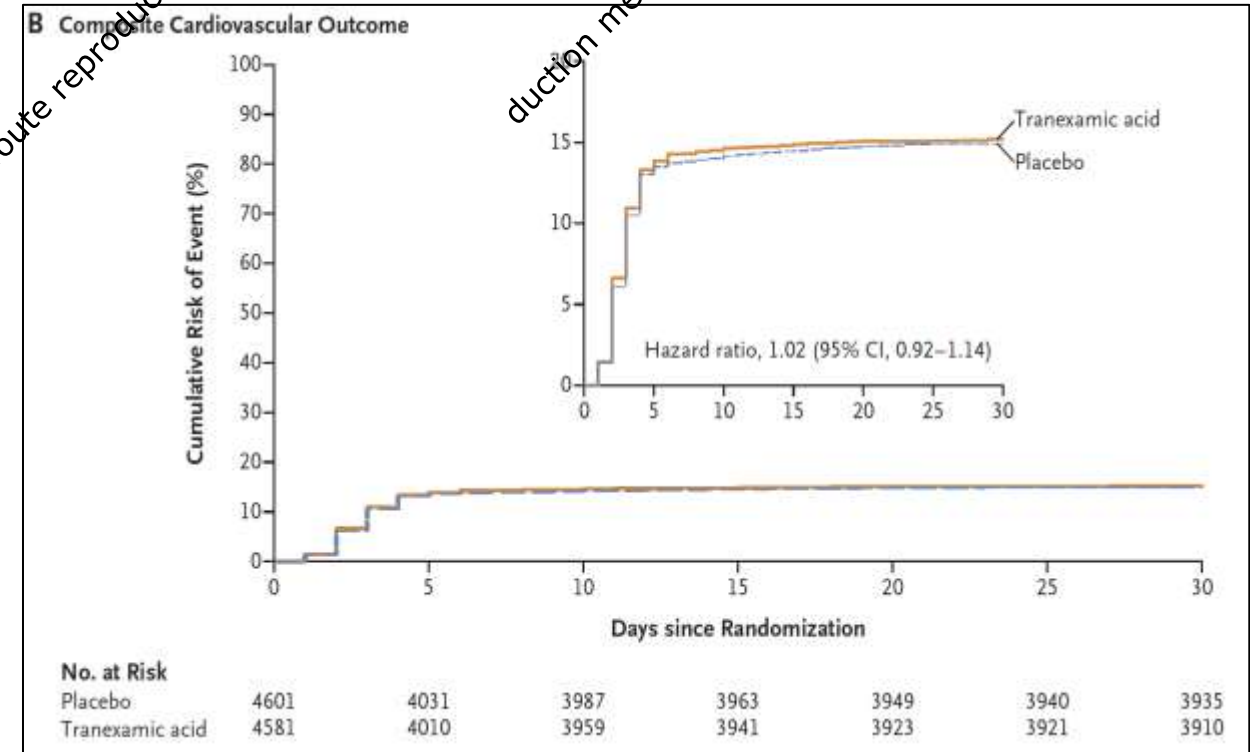
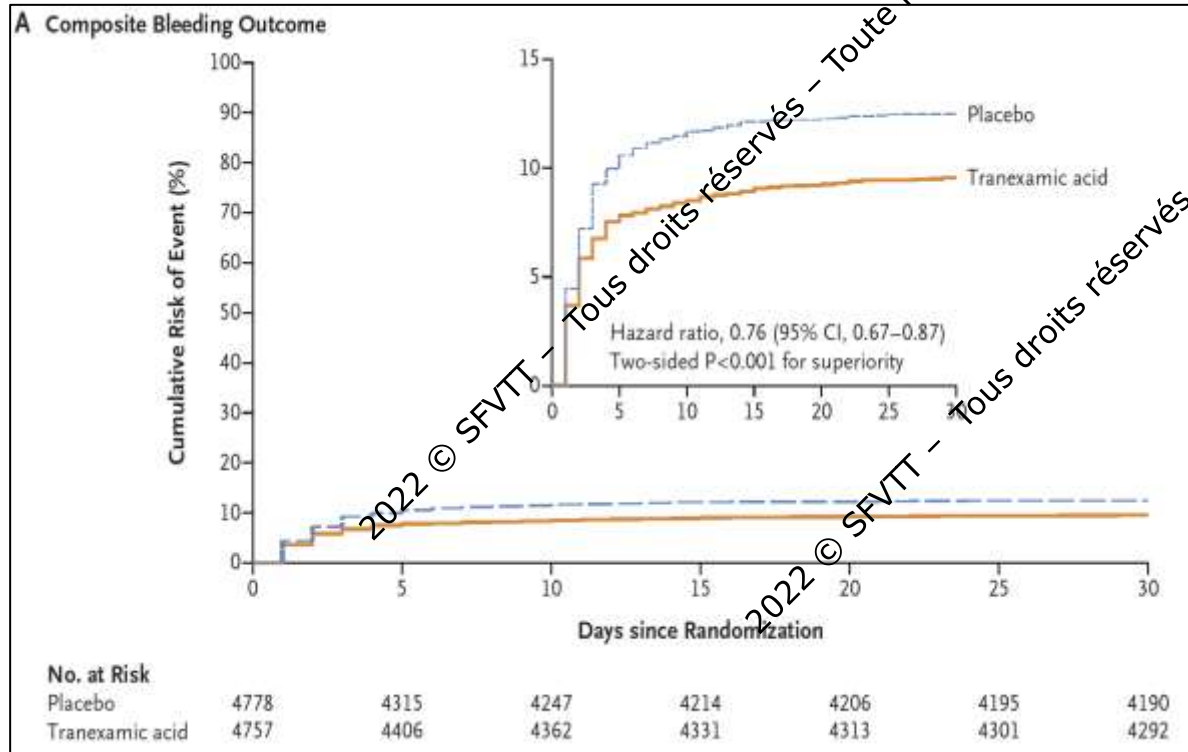


Tranexamic Acid in Patients Undergoing Noncardiac Surgery

P.J. Devereaux, M. Marcucci, T.W. Painter, D. Conen, V. Lomivorotov, D.I. Sessler, M.T.V. Chan, F.K. Borges, M.J. Martínez-Zapata, C.Y. Wang, D. Xavier, S.N. Ofori, M.K. Wang, S. Efremov, G. Landoni, Y.V. Kleinlugtenbelt, W. Szczeklik, D. Schmartz, A.X. Garg, T.G. Short, M. Wittmann, C.S. Meyhoff, M. Amir, D. Torres, A. Patel, E. Duceppe, K. Ruetzler, J.L. Parlow, V. Tandon, E. Fleischmann, C.A. Polanczyk, A. Lamy, S.V. Astrakov, M. Rao, W.K.K. Wu, K. Bhatt, M. de Nadal, V.V. Likhvantsev, P. Paniagua, H.J. Aguado, R.P. Whitlock, M.H. McGillion, M. Prystajecy, J. Vincent, J. Eikelboom, I. Copland, K. Balasubramanian, A. Turan, S.I. Bangdiwala, D. Stillo, P.L. Gross, T. Cafaro, P. Alfonsi, P.S. Roshanov, E.P. Belley-Côté, J. Spence, T. Richards, T. VanHelder, W. McIntyre, G. Guyatt, S. Yusuf, and K. Leslie, for the POISE-3 Investigators*

The NEW ENGLAND JOURNAL of MEDICINE

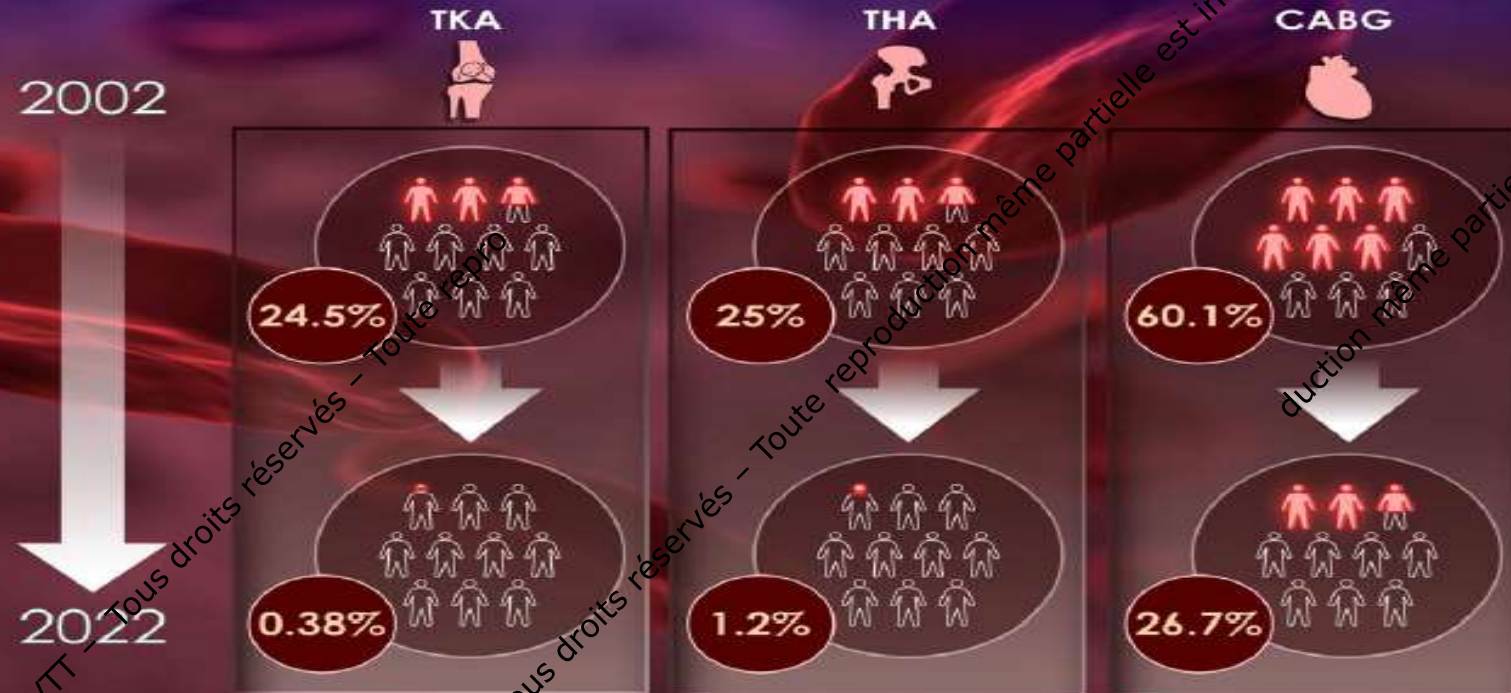
MAY 26, 2022



The Impact of a Large-Scale Blood Management Program

A special article by Pavenski et al describes how a coordinated blood management program can effectively reduce transfusion rates, complications of transfusion, and hospital length of stay.¹ Specially trained health professionals facilitated multimodal efforts to reduce transfusion rates across a network of 25 hospitals in Ontario, Canada.

The percentage of patients receiving RBC transfusions decreased over 20 years...



Significant decreases were also observed for...

Average number of units utilized per transfused patient



Hospital length of stay



Infection rates



This report shows how a well-coordinated, multidisciplinary blood management program can have a significant impact on reducing transfusion rates, improved patient outcomes, and cost savings.

Hospital-Acquired Infection, Length of Stay, and Readmission in Elective Surgery Patients Transfused 1 Unit of Red Blood Cells: A Retrospective Cohort Study

Kevin M. Trentino, PhD,*† Michael F. Leahy, MBChB,‡§ Wendy N. Erber, MD,||¶
Hamish Mace, MBChB,#** Kylie Symons, BN,# Charley A. Budgeon, PhD,* and Kevin Murray, PhD*

KEY POINTS

- **Question:** What are the outcomes associated with the transfusion of 1 unit of red blood cells in elective surgery patients when compared to those not transfused?
- **Findings:** After adjusting for confounders, patients receiving a single unit of red blood cells were more likely to experience a hospital-acquired infection, have longer hospital stays, and be readmitted to hospital within 28 days.
- **Meaning:** These results add to evidence suggesting the importance of implementing patient blood management strategies to avoid even small amounts of red blood cell transfusions in elective surgery.

Table 2. Unadjusted and Adjusted Relative Risk of the Different Outcomes Comparing Those With the Transfusion of 1 Unit of Red Blood Cells to Those Without a Transfusion

Outcomes	Red blood cell transfusion		Unadjusted relative risk	Pooled adjusted relative risk ^a
	One unit (n = 767)	No units (n = 23,202)		
Hospital-acquired infection	71 (9.3)	387 (1.7)	6.04 (4.64–7.87)	3.94 (2.99–5.20)
Length of stay, median (IQR)	7 (6–21)	3 (2–5)	2.25 (2.14–2.37)	1.57 (1.51–1.63)
Emergency readmission	169 (22.0)	2477 (10.7)	2.36 (1.98–2.82)	1.42 (1.20–1.69)

Multimodal Patient Blood Management Program Based on a Three-pillar Strategy

A Systematic Review and Meta-analysis

Ann Surg 2019;269:794–804

Friederike C. Althoff,* Holger Neb, MD,* Eva Herrmann, PhD,† Kevin M. Trentino,‡ Lee Vernich,§
Christoph Füllenbach, PhD,* John Freedman, MD,*¶ Jonathan H. Waters, MD,|| Shannon Farmer, MD,**††
Michael F. Leahy, MD,‡‡ Kai Zacharowski, MD, PhD,* Patrick Meybohm, MD,* and Suma Choorapoikayil, PhD*

Reductions due to Patient Blood Management

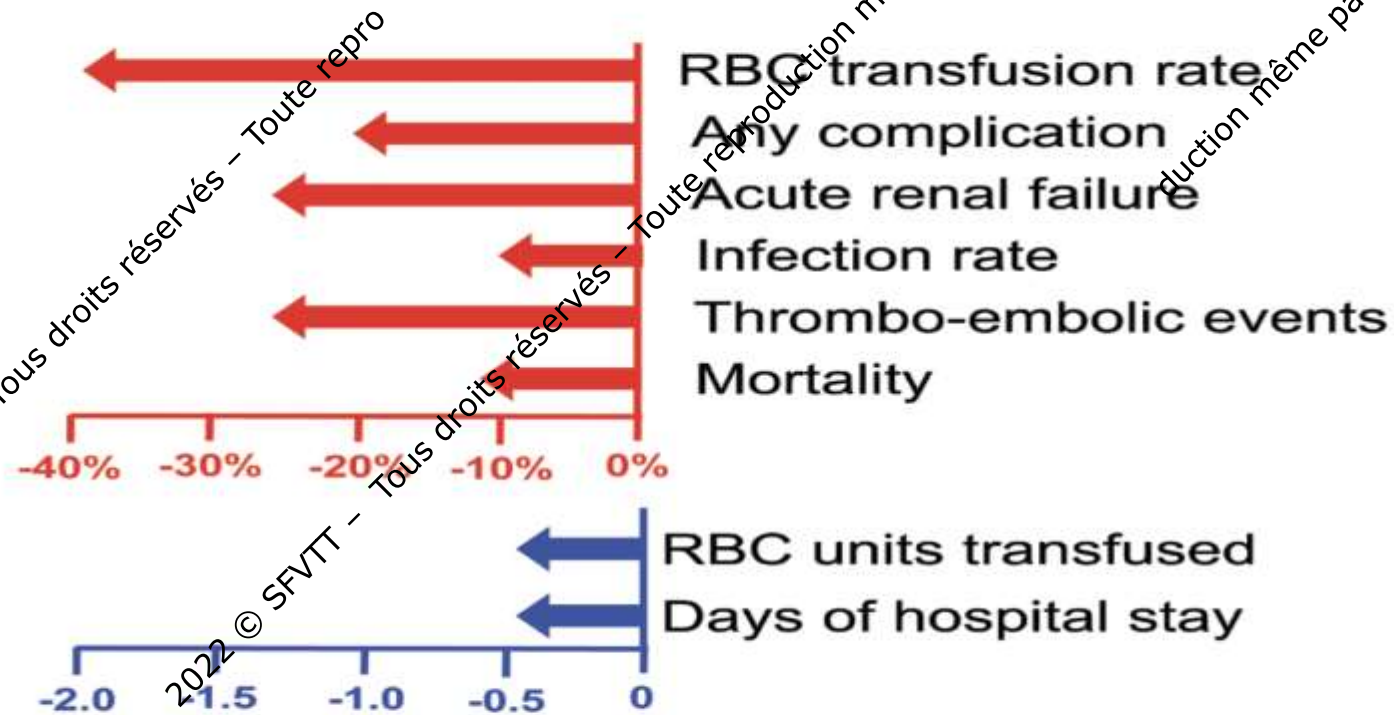


Fig. 1. Implementing Patient Blood Management results in reduced erythrocyte transfusions, major postoperative complications including mortality, and hospital length of stay (according to Althoff *et al.*¹¹).

Patient Blood Management: Improving Outcomes for Millions While Saving Billions. What Is Holding It Up?

Axel Hofmann, Dr rer medic, ME,*† Aryeh Shander, MD,‡§¶¶ Neil Blumberg, MD,# Jeffrey M. Hamdorf, MD, PhD,* James P. Isbister, MB,** and Irwin Gross, MD††

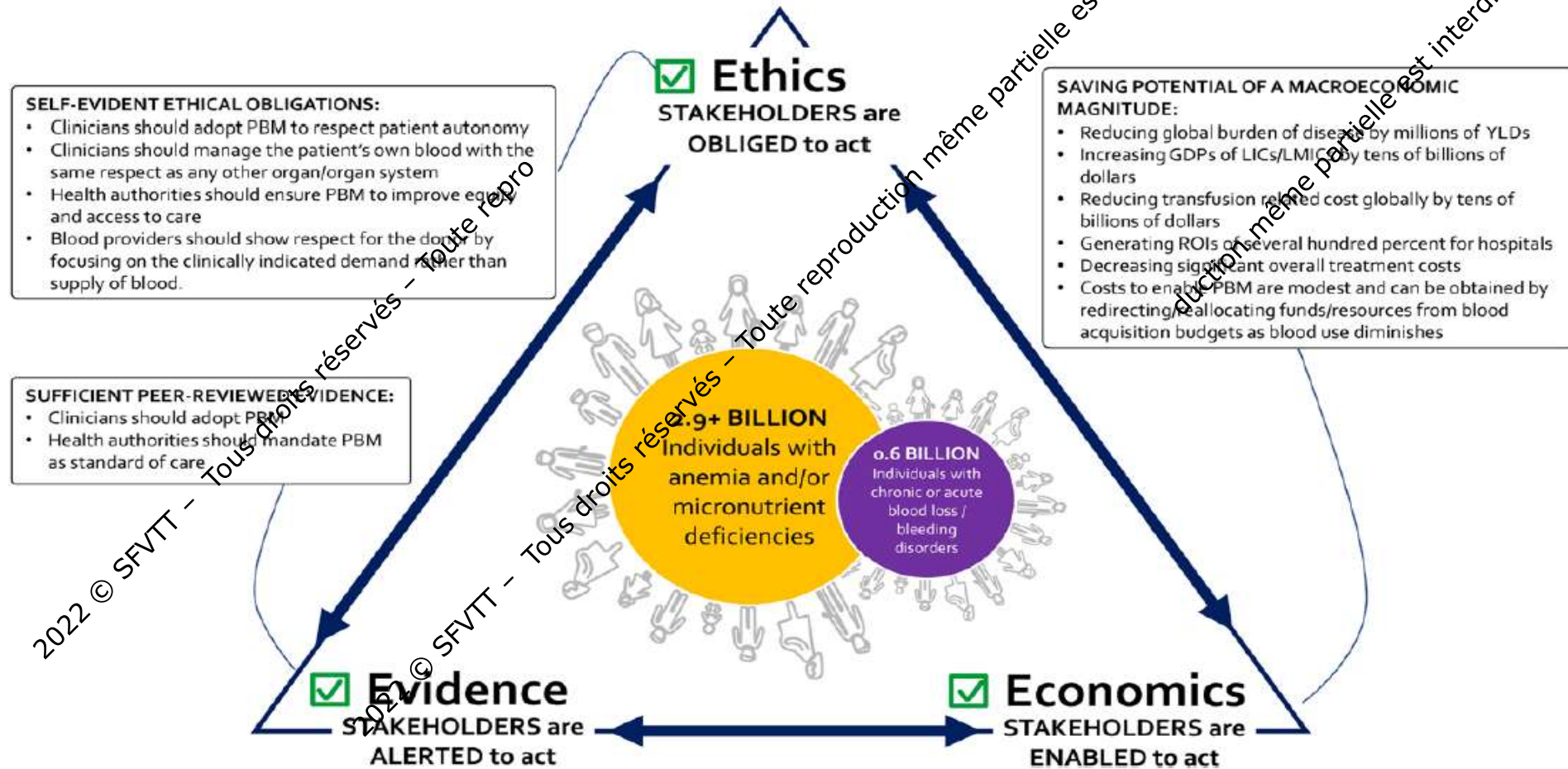


Figure 2. Evidence, economics, and ethics—the “Triple E”—call stakeholders to implement PBM to benefit billions of individuals with anemia/micronutrient deficiencies and both chronic and acute blood loss and bleeding disorders. GDP indicates gross domestic product; LIC, low-income country; LMIC, lower middle-income country; PBM, patient blood management; YLDs, years lived with disability.

1er juillet 2021

Qualité des soins
perçue par le
patient –
Indicateurs
PROMs et PREMs

*“No decision about me, without me”
Department of Health in the UK, 2012*

Patient blood management as the standard of care

Michael F. Murphy^{1,2} and Antony Palmer³



Tableau 8. Résumé des impacts de l'utilisation de PROMs

Impacts des PROMs	Preuve de l'impact des PROMs
Impacts sur la prise en charge clinique des patients	
– Communication (patient-professionnels, professionnels-professionnels)	+++
– Prise en charge des symptômes (diagnostic, suivi, etc.)	++
– Actions cliniques engendrées (modification de traitement, adressage vers d'autres professionnels de santé, etc.)	+
Impacts sur les résultats des soins	
– Symptômes physiques (diminution de la sévérité, diminution de la prévalence, etc.)	+
– Symptômes psychiques (diminution de l'anxiété, etc.)	+
Impacts des PROMs	
– Qualité de vie des patients	+
– Satisfaction des patients	+++
Impacts sur la performance et la régulation du système de soins	
– Diffusion publique (transparence), évaluation externe, paiement à la qualité (maîtrise de la dépense), suivi populationnel	+

Tous droits réservés – Toute reproduction même partielle est interdite.

Patients' Choice, Consent, and Ethics in Patient Blood Management

Anesth Analg 2022;135:489–500

James P. Isbister, MB,* Bronwyn L. Pearse, PhD,†‡ Alana S. Delaforce, MN,§|| and Shannon L. Farmer, DHSc¶#

Understanding Important Person-focused Features of Patient Blood Management

Patient blood management (PBM) includes

All clinical care aimed at optimizing clinical outcomes for patient

Managing and preserving individual's blood as an invaluable resource

What are the important features of person-focused PBM, and how can they be achieved?

Three principles of effective PBM

PBM ethics Patients' choice Patients' consent

Steps included in effective PBM

Regular evaluation of the patient's blood status

Management of identified blood abnormalities

Avoidance or minimization of allogeneic blood transfusion

Best practices of PBM

Patients must be informed of their blood status, disease, and treatment options

PBM should be personalized to optimize clinical outcome

PBM decisions should account for related multifaceted medical, legal, ethical, and economic issues

PBM ensures that individual patient's blood is managed ethically with due consideration accorded to their informed choice and consent

Patients' Choice, Consent, and Ethics in Patient Blood Management

Isbister et al. (2022)

L'amélioration de la qualité et de la sécurité des soins pour le patient représente un enjeu important pour les hôpitaux

“Retarder un acte de chirurgie programmée afin de traiter une anémie détectée en pré-opératoire[...] permet d'améliorer la prise en charge du patient et de réduire les complications potentielles, y compris le recours à la transfusion”¹



NICE

Le traitement de la carence martiale par un apport en fer permet de **réduire le besoin transfusionnel et les événements indésirables associés** [...].³

“Lorsque l'anémie est traitée en amont d'une intervention, [...] le **risque de complications liées au recours à la transfusion est diminué**.”²



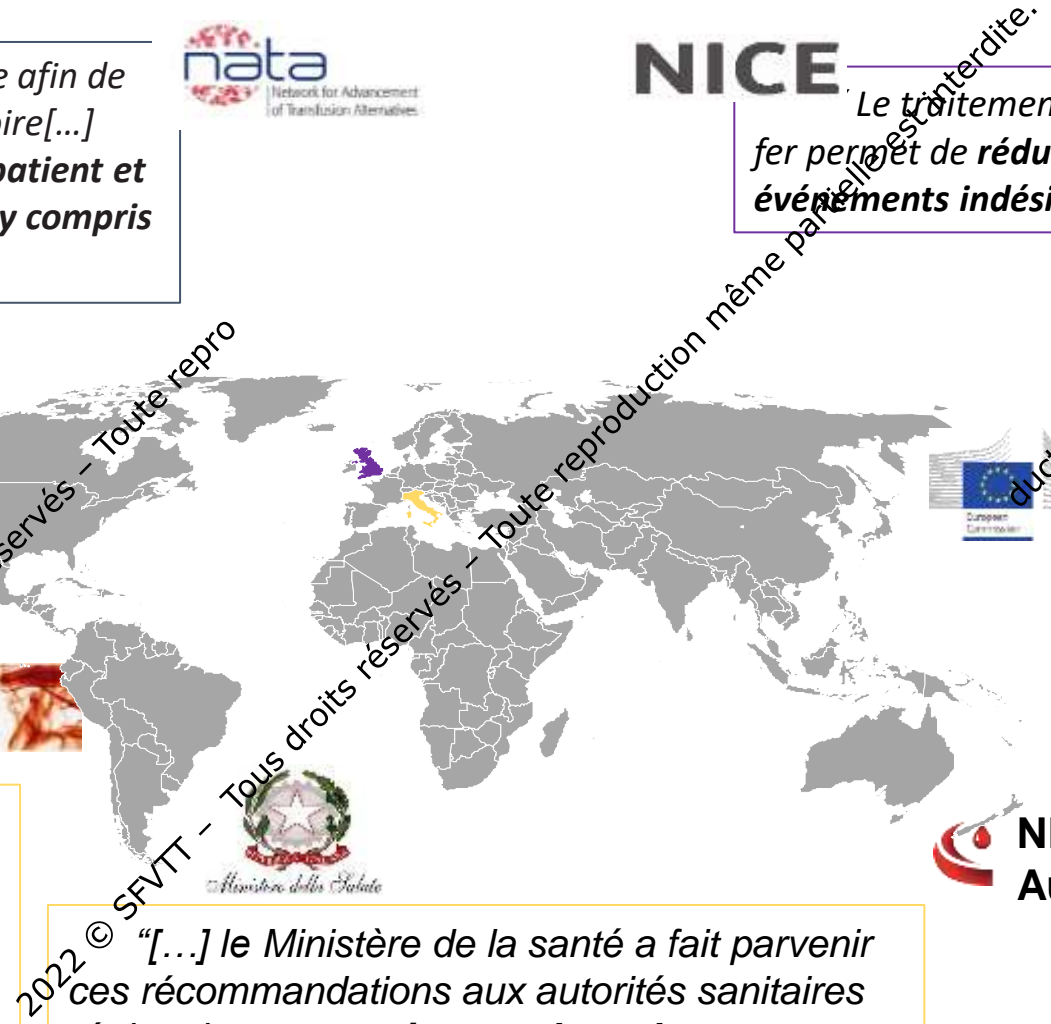
“[...] Les programmes d'épargne sanguine constituent une approche centrée sur le patient [...] Ainsi, le **recours à la transfusion “évitable” est réduit voire supprimé. Ce qui se traduit par une amélioration de la sécurité et du résultat clinique pour le patient**”

“Le fait de ne pas traiter ces patients afin d'éviter le recours à la transfusion peut être **qualifié de prise en charge clinique sub-optimale**, car il est bien connu que l'anémie pré-opératoire constitue un facteur important de risque en terme de morbidité et de mortalité [...]”⁶

“[...] le Ministère de la santé a fait parvenir ces recommandations aux autorités sanitaires régionales **pour mise en place dans l'ensemble des établissements de soins, afin de permettre une diminution du recours à la transfusion**”⁵ [...]



“Le déploiement de programmes d'épargne sanguine représente une opportunité de [...] **réduire le besoin transfusionnel**, de standardiser la pratique transfusionnelle et **d'améliorer les résultats pour le patient** [...]”⁷



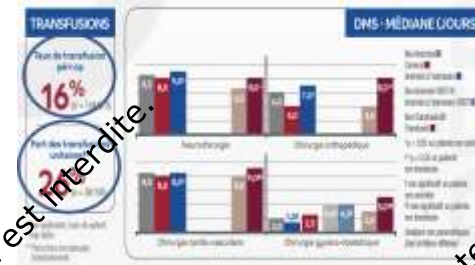
Comment mettre en oeuvre le PBM dans un environnement qui n'est pas prompt au changement



Anesthésistes/réanimateurs
Chirurgiens
Infirmières

Professionnels de santé

- Médecins convaincus des bénéfices du PBM et acteurs dans le déploiement de protocole au sein de leur service
- Génération de données cliniques locales
- Sociétés savantes : recommandations, protocoles



Hôpital

- Générer des données cliniques et économiques à l'échelle de l'établissement hospitalier
- Intégration dans les standards qualité
- Data management : recueillir et analyser les indicateurs de performance (qualité des soins & coûts)



Autorités de Santé

- Promouvoir le PBM en tant que standard national de qualité
- Coopération avec les établissements du sang
- Réduction des coûts au niveau national

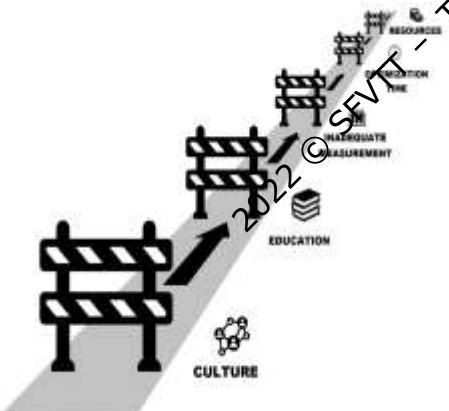
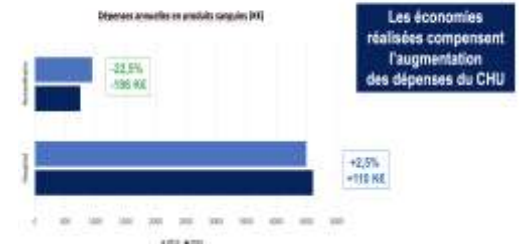


Figure 3. Barriers to addressing prospective anemia. Figure reprinted with permission from the Perioperative Quality Initiative.

Un programme rentable !



PRÉCONISATION 1

APPLIQUER LES MESURES INCONTOURNABLES DE LA PRISE EN CHARGE ANESTHÉSIOLOGIQUE PEROPÉRATOIRE



RECOMMANDER
LES BONNES PRATIQUES

RECOMMANDATION

Gestion du capital sanguin en pré, per et postopératoire et en obstétrique

Validé par le Collège le 21 juillet 2022

Livre blanc du **Patient Blood Management**

Gestion personnalisée
du capital sanguin
en chirurgie programmée



non (périphérique), associée ou non à une anesthésie générale de confort, qui peut permettre de limiter la pression veineuse périphérique (et par voie de conséquence le saignement) et l'obtention d'une hypotension contrôlée (avec l'aide régulée d'amines vasoactives) plus homogène.

- Le maintien d'une normothermie par tous les moyens possibles et ceci, dès la phase d'induction de l'anesthésie.
- Le maintien d'une homéostasie métabolique.
- Le monitoring délocalisé en salle d'opération du niveau d'hématocrite ou de l'hémoglobine et le suivi postopératoire du seuil d'hémoglobine du patient.
- L'utilisation intraveineuse d'acide tranexamique (1 g) dès l'induction anesthésique et répétée en fin d'intervention (1 g). L'utilisation d'acide tranexamique en topique doit être mieux étudiée. L'utilisation en débit continu d'acide tranexamique ou son intérêt en postopératoire ne sont pour l'instant pas démontrés.
- L'éviction des bilans sanguins non indispensables et la minimisation du volume des tubes prélevés.

œuvre

- Donner les moyens organisationnels et financiers au déploiement du PBM au sein des structures.
- Faciliter à chaque étape la collaboration avec les chirurgiens.

parcours de soin du patient en chirurgie.