

# La securite transfusionnelle en milieu a resources limitee: les ABC de la legislation saine des produits sanguins

Dr KF KABAMBI, MD, FCA, Mmed Anaesth (UCT), PG Clin Epid (Mc Master)

Department of anaesthesia and Critical care

Nelson Mandela Academic Hospital

Walter Sisulu University

# overview

- Pourquoi la securite transfusionnelle?
- Le congo prend de l'elan
- La benediction des derniers
- Collecte du sang dans le monde, en Afrique, au congo
- Un mot sur la legislation saine

- La sécurité transfusionnelle fait référence aux mesures et aux pratiques mises en œuvre pour minimiser les risques et les complications associés à la transfusion de sang et de produits sanguins.

Pourquoi la sécurité  
transfusionnelle dans un  
Congrès de médecine  
d'urgence?

Pourquoi cette sécurité dans  
le cadre des soins  
universels?





Quelques evidences

# Prevalence, years lived with disability, and trends in anaemia burden by severity and cause, 1990–2021: findings from the Global Burden of Disease Study 2021



GBD 2021 Anaemia Collaborators\*

## Summary

**Background** Anaemia is a major health problem worldwide. Global estimates of anaemia burden are crucial for developing appropriate interventions to meet current international targets for disease mitigation. We describe the prevalence, years lived with disability, and trends of anaemia and its underlying causes in 204 countries and territories.

**Methods** We estimated population-level distributions of haemoglobin concentration by age and sex for each location from 1990 to 2021. We then calculated anaemia burden by severity and associated years lived with disability (YLDs). With data on prevalence of the causes of anaemia and associated cause-specific shifts in haemoglobin concentrations, we modelled the proportion of anaemia attributed to 37 underlying causes for all locations, years, and demographics in the Global Burden of Disease Study 2021.

**Findings** In 2021, the global prevalence of anaemia across all ages was 24·3% (95% uncertainty interval [UI] 23·9–24·7), corresponding to 1·92 billion (1·89–1·95) prevalent cases, compared with a prevalence of 28·2% (27·8–28·5) and 1·50 billion (1·48–1·52) prevalent cases in 1990. Large variations were observed in anaemia burden by age, sex, and geography, with children younger than 5 years, women, and countries in sub-Saharan Africa and south Asia being particularly affected. Anaemia caused 52·0 million (35·1–75·1) YLDs in 2021, and the YLD rate due to anaemia declined with increasing Socio-demographic Index. The most common causes of anaemia YLDs in 2021 were dietary iron deficiency (cause specific anaemia YLD rate per 100 000 population: 422·4 [95% UI 286·1–612·0]).

*Lancet Haematol* 2023

Published Online

July 31, 2023

[https://doi.org/10.1016/S2352-3026\(23\)00160-6](https://doi.org/10.1016/S2352-3026(23)00160-6)

See Online/Comment

[https://doi.org/10.1016/S2352-3026\(23\)00171-0](https://doi.org/10.1016/S2352-3026(23)00171-0)

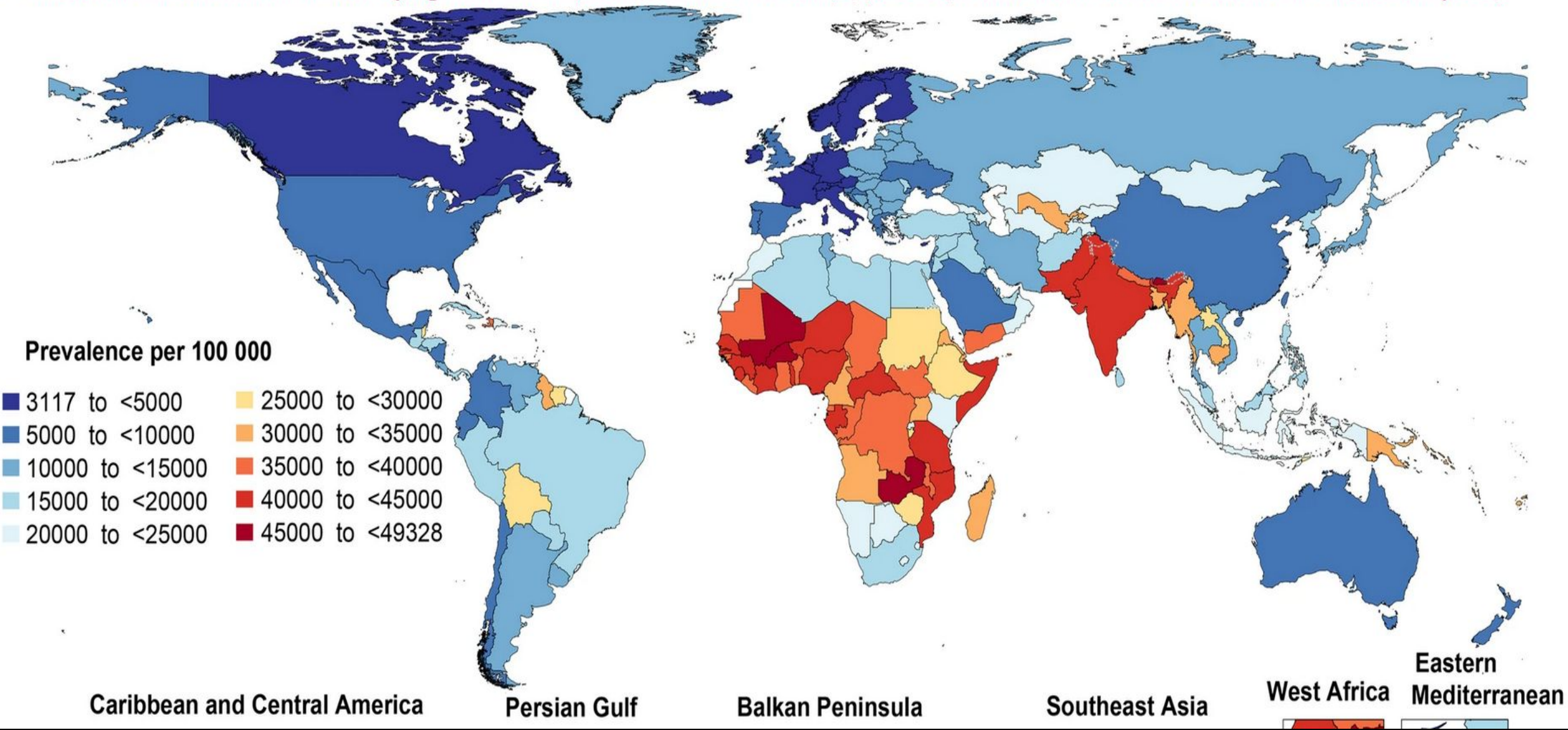
\*Collaborators are listed at the end of the Article

Correspondence to:

Prof Nicholas J Kassebaum,  
Institute for Health Metrics and  
Evaluation, Seattle, WA 98195,  
USA

[nickjk@uw.edu](mailto:nickjk@uw.edu)

From: Burden of anemia and its underlying causes in 204 countries and territories, 1990–2019: results from the Global Burden of Disease Study 2019





# Preoperative anaemia and clinical outcomes in the South African Surgical Outcomes Study

D Marsicano,<sup>1</sup> BComm, MB ChB, DA (SA); N Hauser,<sup>2,3</sup> BSc (Physio), MB ChB, DA (SA), FCA (SA), MMed, FANZCA; F Roodt,<sup>2</sup> MB ChB, FCA (SA); E Cloete,<sup>4</sup> MB ChB, DA (SA), FCA (SA); W Conradie,<sup>5</sup> MB ChB, FCS (SA), MMed (Surg); V Morford,<sup>6</sup> MB BCh, DA (SA), FCA (SA); D Nel,<sup>7</sup> MB ChB, DA (SA), FCA (SA); D G Bishop,<sup>8</sup> MB ChB, FCA (SA); T E Madiba,<sup>9</sup> PhD; B M Biccadd,<sup>1</sup> PhD; on behalf of the South African Surgical Outcomes Study investigators

<sup>1</sup> Department of Anaesthesia and Perioperative Medicine, Groote Schuur Hospital and Faculty of Health Sciences, University of Cape Town, South Africa

<sup>2</sup> Department of Anaesthesia and Perioperative Medicine, Groote Schuur Hospital, Red Cross War Memorial Children's Hospital and Faculty of Health Sciences, University of Cape Town, South Africa

<sup>3</sup> Department of Anaesthesia and Pain Medicine, Fiona Stanley and Fremantle Hospital Group, Perth, Australia

<sup>4</sup> Department of Anaesthesia and Perioperative Medicine, Groote Schuur Hospital, New Somerset Hospital and Faculty of Health Sciences, University of Cape Town, South Africa

<sup>5</sup> Department of Surgery, Tygerberg Hospital and Faculty of Medicine and Health Sciences, Stellenbosch University, Cape Town, South Africa

<sup>6</sup> Department of Anaesthesia, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa

<sup>7</sup> Department of Anaesthesia, Chris Hani Baragwanath Academic Hospital and Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa

<sup>8</sup> Perioperative Research Group, Department of Anaesthetics, Critical Care and Pain Management, School of Clinical Medicine, College of Health Sciences, Nelson R Mandela School of Medicine, University of KwaZulu-Natal, Durban, South Africa

<sup>9</sup> Department of Surgery, School of Clinical Medicine, College of Health Sciences, Nelson R Mandela School of Medicine, University of KwaZulu-Natal, Durban, South Africa

**Corresponding author:** D Marsicano (danielamarsicano@gmail.com)

**Background.** In high-income countries, preoperative anaemia has been associated with poor postoperative outcomes. To date, no large study has investigated this association in South Africa (SA). The demographics of SA surgical patients differ from those of surgical patients in the European and Northern American settings from which the preoperative anaemia data were derived. These associations between preoperative anaemia and postoperative outcomes are therefore not necessarily transferable to SA surgical patients.

**Objectives.** The primary objective was to determine the association between preoperative anaemia and in-hospital mortality in SA adult non-cardiac, non-obstetric patients. The secondary objectives were to describe the association between preoperative anaemia and (i) critical care admission and (ii) length of hospital stay, and the prevalence of preoperative anaemia in adult SA surgical patients.

**Methods.** We performed a secondary analysis of the South African Surgical Outcomes Study (SASOS), a large prospective observational study of patients undergoing inpatient non-cardiac, non-obstetric surgery at 50 hospitals across SA over a 1-week period. To determine whether preoperative anaemia is independently associated with mortality or admission to critical care following surgery, we conducted a multivariate logistic regression analysis that included all the independent predictors of mortality and admission to critical care identified in the original SASOS model.

**Results.** The prevalence of preoperative anaemia was 1 727/3 610 (47.8%). Preoperative anaemia was independently associated with in-hospital mortality (odds ratio (OR) 1.657, 95% confidence interval (CI) 1.055 - 2.602;  $p=0.028$ ) and admission to critical care (OR 1.487, 95% CI 1.081 - 2.046;  $p=0.015$ ).

# Transfusion

- Traitement par défaut de l'anémie
- Modalité de traitement la plus abusée en Amérique

Collecte de sang la crise a nos portes



Thèmes de santé ▾

Pays ▾

Centre des médias ▾

Urgences sanitaires ▾

Données ▾

À propos ▾

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# Sécurité transfusionnelle et approvisionnement en sang

2 juin 2023

Principaux faits

English

العربية

中文

Русский

Español

Focus

# Collecte de sang

- Sur les 118,5 millions de dons de sang collectés chaque année dans le monde, 40 % le sont dans des pays à revenu élevé où vit 16 % de la population mondiale.
- On compte 31,5 dons de sang pour 1000 habitants dans les pays à revenu élevé, 16,4 dans les pays à revenu intermédiaire supérieur, 6,6 dans les pays à revenu intermédiaire inférieur et 5,0 dans les pays à faible revenu.
- Seuls 56 des 171 pays ayant communiqué des données produisent des produits médicaux dérivés du plasma par fractionnement du plasma recueilli dans le pays.

Qu'est-ce qui rend la  
transfusion sécuritaire?



Donneur de  
sang



# Types de donneurs de sang

Selon l'OMS

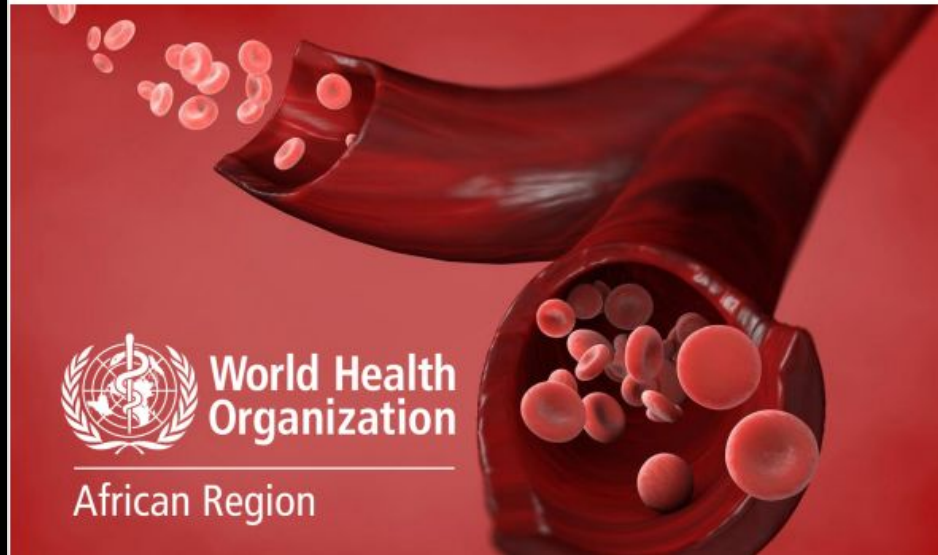
- les donneurs de sang volontaires non rémunérés (VNRBD)
- les donneurs de sang de remplacement de la famille
- les donneurs rémunérés.

# **WHO AFRICAN REGION STATUS REPORT ON BLOOD AVAILABILITY, SAFETY AND QUALITY**

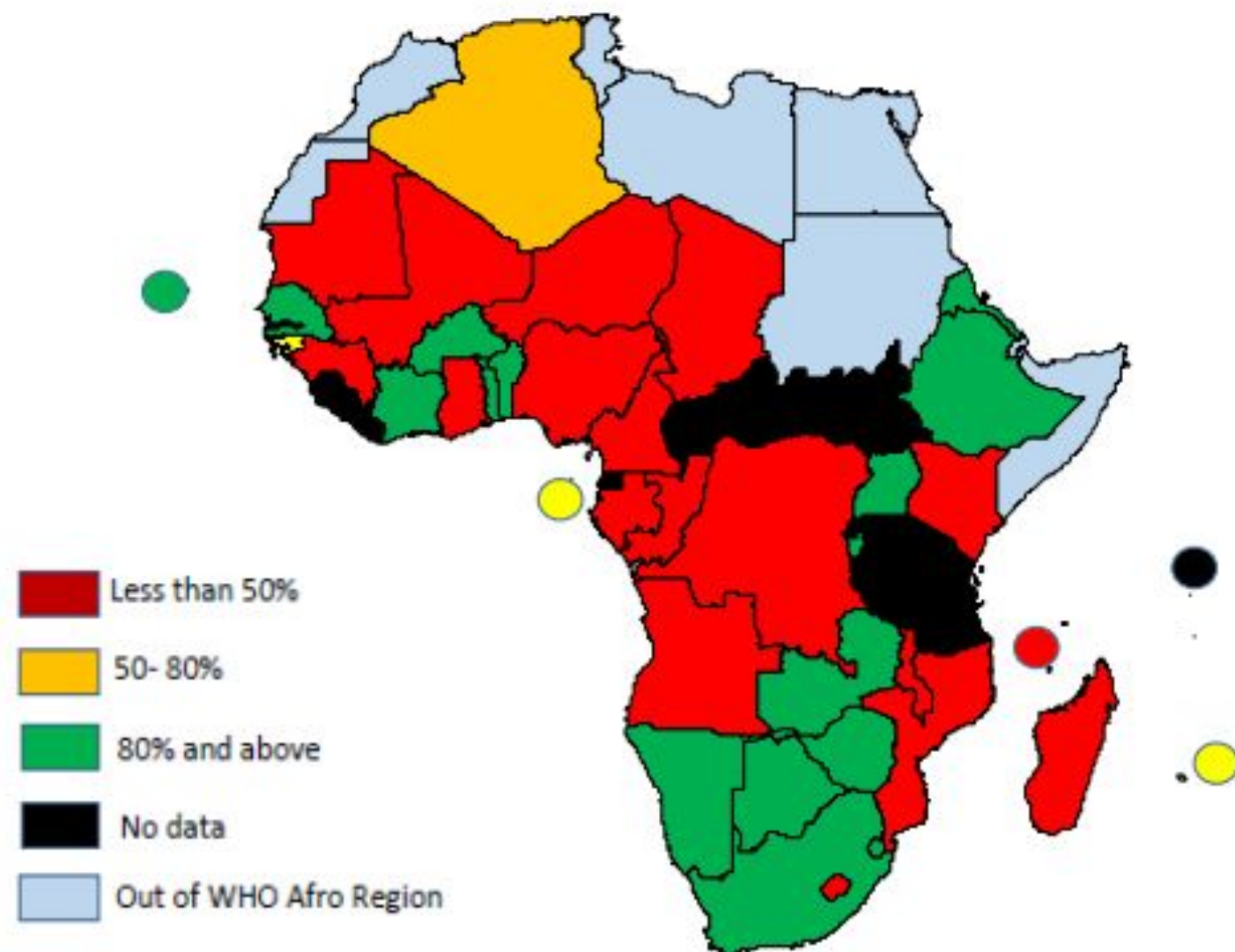


**World Health  
Organization**

African Region



**Figure 2: Proportion of voluntary non-remunerated blood donations in 39 countries of the WHO African Region in 2020**



- Dans les pays à revenu élevé tels que le Danemark et le Royaume-Uni, l'utilisation de VNRBD garantit la fiabilité d'un approvisionnement national adéquat en sang.
- Dans la Région Afrique de l'OMS, les dons de VNRBD ne sont pas en mesure de répondre à la demande de sang dans de nombreux pays d'Afrique subsaharienne.
- Seulement cinq pays: Botswana, Maurice, Namibie, Afrique du Sud et Eswatini ont satisfait à l'exigence minimale de sang de 10 unités pour 1000 habitants .

Quid d'une législation saine  
des produits sanguins?

# Une bonne législation devrait

- se concentrer sur la mise en œuvre de mesures clés telles que le dépistage sérologique des infections transmises par transfusion chez les donneurs
- mettre l'accent sur l'importance d'une surveillance
- évaluer continuellement des mesures de sécurité transfusionnelle afin de cerner les domaines à améliorer.

- promouvoir l'amélioration de l'éducation sur les pratiques transfusionnelles
- Mettre en œuvre d'une politique transfusionnelle restrictive (la gestion du sang des patients).
- Permettre l'établissement d'un registre national des données transfusionnelles (collecte des données).



Solution: consideration la  
gestion de sang de patient  
comme alternative

- La gestion du sang des patients est une approche centrée sur le patient, systématique et fondée sur des données probantes visant à améliorer les résultats pour les patients en gérant et en préservant leur propre sang, tout en favorisant la sécurité et l'autonomisation des patients.

Raisons pour considerer la  
gestion du sang des patients  
dans la politique sanitaire

- l'écart croissant entre l'offre et la demande de produits sanguins,
- l'escalade du coût de la transfusion,
- les problèmes de sécurité des produits,
- les résultats transfusionnels indésirables, et l'efficacité douteuse de beaucoup d'indications de la transfusions

|         | <b>First pillar</b><br>Optimise red cell mass                                                                                                                                                                                                                                                                                                                                                                                                       | <b>Second pillar</b><br>Minimise blood loss and bleeding                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Third pillar</b><br>Harness and optimise<br>physiological reserve of anaemia                                                                                                                                                                                                                                                                                                 |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PREOP   | <ul style="list-style-type: none"> <li>• Detect anaemia</li> <li>• Identify underlying disorder/s causing anaemia</li> <li>• Manage disorder/s</li> <li>• Refer for further evaluation if necessary</li> <li>• Treat suboptimal iron stores/iron deficiency/ anaemia of chronic disease/iron-restricted erythropoiesis</li> <li>• Treat other haematinic deficiencies</li> <li>• Note: Anaemia is a contraindication to elective surgery</li> </ul> | <ul style="list-style-type: none"> <li>• Identify and manage bleeding risk</li> <li>• Minimise iatrogenic blood loss</li> <li>• Procedure planning and rehearsal</li> </ul>                                                                                                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>• Assess/optimize patient's physiological reserve and risk factors</li> <li>• Compare estimated blood loss with patient-specific tolerable blood loss</li> <li>• Formulate patient-specific management plan using appropriate blood-conservation modalities to minimise blood loss, optimise red cell mass and manage anaemia</li> </ul> |
| INTRAOP | <ul style="list-style-type: none"> <li>• Time surgery with haematological optimisation</li> </ul>                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>• Meticulous haemostasis and surgical techniques</li> <li>• Blood-sparing surgical devices</li> <li>• Anaesthetic blood-conserving strategies</li> <li>• Autologous blood options</li> <li>• Maintain normothermia</li> <li>• Pharmacological/haemostatic agents</li> </ul>                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Optimise cardiac output</li> <li>• Optimise ventilation and oxygenation</li> </ul>                                                                                                                                                                                                                                                     |
| POSTOP  | <ul style="list-style-type: none"> <li>• Optimise erythropoiesis</li> <li>• Be aware of drug interactions that can increase anaemia</li> </ul>                                                                                                                                                                                                                                                                                                      | <ul style="list-style-type: none"> <li>• Vigilant monitoring and management of postoperative bleeding</li> <li>• Avoid secondary haemorrhage</li> <li>• Rapid warming/maintain normothermia (unless hypothermia specifically indicated)</li> <li>• Autologous blood salvage</li> <li>• Minimise iatrogenic blood loss</li> <li>• Haemostasis/anticoagulation management</li> <li>• Prophylaxis of upper GI haemorrhage</li> <li>• Avoid/treat infections promptly</li> <li>• Be aware of adverse effects of medication</li> </ul> | <ul style="list-style-type: none"> <li>• Optimise anaemia reserve</li> <li>• Maximise oxygen delivery</li> <li>• Minimise oxygen consumption</li> <li>• Avoid/treat infections promptly</li> <li>• Restrictive transfusion thresholds</li> </ul>                                                                                                                                |

**Perioperative multidisciplinary multimodal patient-specific team approach**



NELSON MANDELA ACADEMIC HOSPITAL

# PATIENT BLOOD MANAGEMENT GUIDELINES



SUSTAINABLE  
PATIENT BLOOD  
MANAGEMENT FOR  
AFRICA



A TEAM EFFORT TO  
SAVE LIVES AND  
SAVE BLOOD



A COST  
EFFECTIVE  
STRATEGY



DECREASED  
WASTAGE OF  
BLOOD  
PRODUCTS



IMPROVED  
PATIENT  
BLOOD  
MANAGEMENT



# **BLOOD WORKS**

An Owner's Guide



What Every Person  
Needs to Know **BEFORE**  
They are a Patient

Dr Shannon  
FARMER

Dr Irwin  
GROSS

Dr Aryeh  
SHANDER

Collecte des donnees



## Services and Features

Surveys

Multi-site studies

Secure data collection

Scalable

Proven reliable since 2004

Online and offline

Export to common statistics  
packages



## How to Join?

REDCap is **free to non-profit organizations** who join the REDCap Consortium.

[More on joining the REDCap Consortium](#)

To effect change we need:  
Critical mass  
Test of time



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