

James
Lind
Alliance

Priority Setting Partnerships

Working in partnership with



James Lind Alliance Blood Transfusion and Blood Donation

Professor Mike Murphy
NHS Blood & Transplant, Oxford University
Hospitals and University of Oxford on behalf of
the Steering Group



British Blood
Transfusion Society

#BBTS2018

Oxford University Hospitals 

NHS Foundation Trust



Blood and Transplant

Transfusion practice in England

» High activity

1.5 million red cell units to 500,000 patients/year

» High cost

£300+ million/year for the cost of blood
plus costs for the transfusion process

» Risks for both donors and patients

» Lack of evidence for much of blood donation and transfusion practice

Recent initiatives in transfusion

Guidelines

Annals of Internal Medicine

Red Blood Cell Transfusion: A Clinical Practice Guideline From the AABB*

Jeffrey L. Carson, MD; Brenda J. Grossman, MD, MPH; Steven Kleinman, MD; Alan T. Tinmouth, MD; Marisa B. Marques, MD; Mark K. Fung, MD, PhD; John B. Holcomb, MD; Oriji Illoh, MD; Lewis J. Kaplan, MD; Louis M. Katz, MD; Sunil V. Rao, MD; John D. Roback, MD, PhD; Aryeh Shander, MD; Aaron A.R. Tobian, MD, PhD; Robert Weinstein, MD; Lisa Grace Swinton McLaughlin, MD; and Benjamin Djulbegovic, MD, PhD, for the Clinical Transfusion Medicine Committee of the AABB

Description: Although approximately 85 million units of red blood cells (RBCs) are transfused annually worldwide, transfusion practices vary widely. The AABB (formerly, the American Association of Blood Banks) developed this guideline to provide clinical recommendations about hemoglobin concentration thresholds and other clinical variables that trigger RBC transfusions in hemodynamically stable adults and children.

Methods: These guidelines are based on a systematic review of randomized clinical trials evaluating transfusion thresholds. We performed a literature search from 1950 to February 2011 with no language restrictions. We examined the proportion of patients who received any RBC transfusion and the number of RBC units transfused to describe the effect of restrictive transfusion strategies on RBC use. To determine the clinical consequences of restrictive transfusion strategies, we examined overall mortality, nonfatal myocardial infarction, cardiac events, pulmonary edema, stroke, thromboembolism, renal failure, infection, hemorrhage, mental confusion, functional recovery, and length of hospital stay.

Recommendation 1: The AABB recommends adhering to a restrictive transfusion strategy (7 to 8 g/dL) in hospitalized, stable patients (Grade: strong recommendation; high-quality evidence).

Recommendation 2: The AABB suggests adhering to a restrictive strategy in hospitalized patients with preexisting cardiovascular disease and considering transfusion for patients with symptoms or a hemoglobin level of 8 g/dL or less (Grade: weak recommendation; moderate-quality evidence).

Recommendation 3: The AABB cannot recommend for or against a liberal or restrictive transfusion threshold for hospitalized, hemodynamically stable patients with the acute coronary syndrome (Grade: uncertain recommendation; very low-quality evidence).

Recommendation 4: The AABB suggests that transfusion decisions be influenced by symptoms as well as hemoglobin concentration (Grade: weak recommendation; low-quality evidence).

Ann Intern Med. 2012;157:49-58.

For author affiliations, see end of text.

This article was published at www.annals.org on 27 March 2012.

www.annals.org

National Clinical Guideline Centre

Final

Transfusion

Blood transfusion

NICE guideline NG24

Methods, evidence and recommendations

November 2015

Final version

Commissioned by the National Institute for Health and Care Excellence



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Systematic reviews and RCTs

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Systematic reviews and RCTs



Implementation



Previous efforts to prioritise research topics in transfusion medicine

CONFERENCE REPORT

2015 proceedings of the National Heart, Lung, and Blood Institute's State of the Science in Transfusion Medicine symposium

*Steven L. Spitalnik,¹ Darrell Triulzi,² Dana V. Devine,³ Walter H. Dzik,⁴ Anne F. Eder,⁵ Terry Gernsheimer,⁶ Cassandra D. Josephson,⁷ Daryl J. Kor,⁸ Naomi L. C. Luban,⁹ Nareg H. Roubinian,¹⁰ Traci Mondoro,¹¹ Lisbeth A. Welniak,¹¹ Shimian Zou,¹¹ and Simone Glynn,¹¹ for the State of the Science in Transfusion Medicine Working Groups**

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TRANSFUSION 2015;55:2282–2290

James Lind Alliance



Established in 2004 by Ian Chalmers

“Mismatch between what research is important to patients and to doctors e.g. surgery and physiotherapy for osteoarthritis rather than drugs”

Listen to BBC Radio 4 Life Scientific 28th February 2012

PSP for Blood Transfusion and Blood Donation

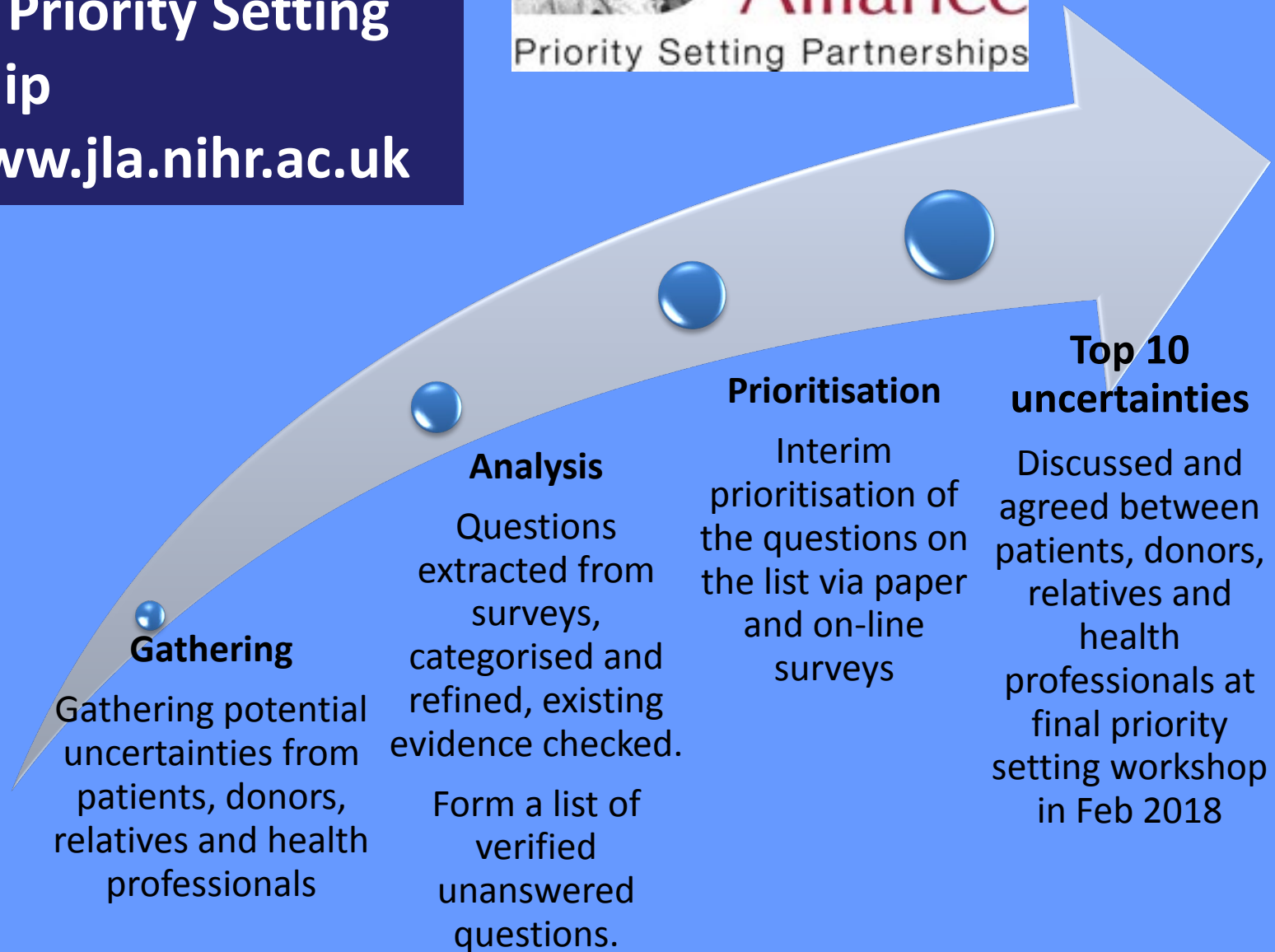


Objectives:

- Work with patients and clinicians to identify uncertainties
- Agree by consensus a prioritised list of those uncertainties for research
- Publicise the results of the PSP
- Take the results to research commissioning bodies to be considered for funding

James Lind Alliance Blood Transfusion and Blood Donation Priority Setting Partnership

<http://www.jla.nihr.ac.uk>



Establishment of a PSP for Blood Donation and Transfusion



Those invited to take part in the PSP were organisations and individuals representing:-

- People who have experienced blood transfusion
- People who donate blood
- Doctors, nurses and professionals allied to medicine with experience of blood donation and/or transfusion
- Those with an interest in avoidance of transfusions including Jehovah's Witnesses

Scope of the PSP for Blood Transfusion and Blood Donation

The following were included:-

- Blood components (red cells, platelets, white cells, cryoprecipitate)
- Adults and children

The following were excluded:-

- Blood products (e.g. albumin, anti-D, immunoglobulin, factor VIII)
- Infants up to 1 year of age
- Laboratory procedures
- Diagnostic testing for anaemia

First survey

817 questions submitted by 408 respondents

Who submitted them?

Number of respondents indicating they were:-

- A patient: 60
- A donor: 216
- A relative/friend of patient needing blood: 92
- A clinician: 323 (nurses 113; doctors 158)

Next...reviewing survey questions



Steering Group members worked in groups to assign them into categories of similar questions, and the SRI team produced a list of 54 'indicative' questions not answered by previous research:-

- Donation: 12
- Benefits and complications of transfusion: 5
- Decision to transfuse: 29
- Administration of a blood transfusion: 4
- Individual questions: 4

Second survey

54 questions submitted for ranking (*'which 3 are the most important'*)

568 respondents indicating they were:-

- A patient: 85
- A donor: 179
- A relative/friend of patient needing blood: 24
- A clinician: 242 (nurses 78; doctors 108)

Final priority setting day

February 28th 2018

- A list of 30 'top' questions had been ranked by the survey respondents
- The purpose of the day was to select the *Top 10*

Final priority setting day

February 28th 2018



Patients, donors and clinicians identify top 10 priorities for blood transfusion and blood donation research



- » What would encourage more people (especially ethnic minority groups) to donate blood?
- » How can health professionals be discouraged from using blood inappropriately?
- » How can the wastage of blood be minimised?
- » What is the optimal type and combination of blood products for adults with major haemorrhage?
- » How can patients, relatives and carers be empowered to have a greater say?
- » How can patients with anaemia be managed to avoid transfusion?
- » What are the best alternatives to transfusion to reduce bleeding?
- » How can the transfusion process be safer in hospitals?
- » What medical conditions make it unsafe for a person to be a blood donor?
- » What are the most effective ways to educate the general public about blood donation?

For more information see: www.jla.nihr.ac.uk



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Blood Transfusion and Blood Donation



This PSP worked with patients, donors, relatives and clinicians to identify and prioritise the most pressing unanswered questions about the therapeutic use of red blood cells, platelets and plasma in patients of any age and in any hospital department. It did this across the whole clinical pathway from blood donation through to recovery from transfusion, including treatment strategies that provide alternatives to using blood.

The PSP was funded by [NHS Blood and Transplant](#), in collaboration with the National Institute for Health Research (NIHR) [Oxford Biomedical Research Centre](#), and began its work in October 2015.

The first survey from the PSP asked anyone with experience of blood transfusion or blood donation to submit their comments and questions, to help influence the research that is done in this area in future. A list of unanswered questions was drawn up from the responses to the survey.

A second survey asked patients, donors, relatives and clinicians to vote on which of the unanswered questions were most important in their experience. In a final workshop in February 2018 patients, donors, relatives and clinicians discussed the 30 questions that people had voted as most important and agreed a final order of priority for them, focusing specifically on what the Top 10 most important future research questions were.

The Blood Transfusion and Blood Donation PSP Top 10 was published in March 2018.

Key document downloads

-  [Blood Transfusion and Blood Donation PSP steering group terms of reference](#) (0.34 MB)
-  [Blood Transfusion and Blood Donation PSP protocol](#) (0.39 MB)
-  [Blood Transfusion and Blood Donation PSP leaflet](#) (0.44 MB)
-  [Blood Transfusion and Blood Donation PSP engagement summary](#) (0.02 MB)

Mailing list

Sign up to our newsletter and stay up to date on the latest news from the JLA

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JLA on Twitter

Tweets by [@LindAlliance](#)

James Lind Alliance Retweeted

 Margaret O'Hara
[@Know_HG](#)

Super excited to be at the 1st steering group meeting for a @LindAlliance PSP for #hyperemesisgravidarum And what a team! @SpewingMummy @kids_IVFICS! @KimberMacGibbon @emtweetsshizzle @clearyb1 @HGSsupportUK @HGmoms

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NHS 70
National Institute for
Health Research
YEARS
OF THE NHS
1948 - 2018

The JLA Infrastructure is funded by the NIHR. Read our [relationship statement](#).

Next steps

- Discussions with NIHR & NHSBT about calls for research
- Monitor new clinical studies to assess the impact of the PSP

Thank you

- Oxford BRC and NHSBT for financial and other support
- Steering Group members:- Bridget Le Huray, Bill Martin, Claire Pulford, Denis Cave, Graham Donald, Heather Saunders, John Grant-Casey, Mike Murphy, Stephen Hibbs, Susan Brunskill, Tim Walsh, Toby Richards.
- JLA Advisors
- All participants in the surveys