## Report of SRI activities and Impact for the year November 2023 to November 2024

## **EXECUTIVE SUMMARY**

- Our reviews have contributed to 32 international and national guidelines and the Transfusion Evidence Library has been referenced in at least 17 published papers.
- One new research grant applications have been made using evidence taken from one of our systematic reviews [see details on page 17].
- □ Three complex systematic reviews were completed and published [see citations detailed on page 2].
- □ A further five full systematic reviews are going through peer review [see details on page 3].
- We have continued our collaboration with ISBT, including recording the first in a new podcast series "Talking Transfusion" which discussed October 2024's Transfusion Evidence Round-Up focussing on 'World Trauma Day' [see details on page 4].
- □ We have been working with an external collaborator, Mixd, to build a website for the SRI.
- □ We have increased the variety of our engagement activities this year [see details on page 4 to 7].
- □ We have continued to grow our Twitter/X [@TransfusionLib, @sritransfusion and @stemcell] and LinkedIn accounts to engage with our library communities and increase our dissemination activities.

## How does this year's output and impact compare to last year?

- We have published less reviews [three compared to 11] and have five reviews going through peer review [three last year].
- We have found more evidence of the citing of our reviews in new guidelines [32 guidelines compared to 20 last year] with more of our reviews cited [ 32 reviews compared to 18 last year].
- The Transfusion Evidence Library has been referenced in fewer journal publications [17 compared to 26].
- The number of followers for each Twitter/X account has increased by 5% for Transfusion Evidence Library, 19% for the SRI and 6% for Stem Cell Evidence: slightly smaller increases compared to those seen between November 2022 and October 2023.

Section	Our Evidence
Publications since November 2023	3 Complex reviews; 1 Protocol; 1 search support; 1 statistical support
Explanations of	Cain L, Geneen LJ, Wiltshire M, Kimber C, Proffitt S, Sandercock J, Dorée C, Brunskill SJ, Estcourt LJ. Universal irradiation of platelets: Does irradiation affect the quality, effectiveness, and safety of platelets for transfusion? Transfus Med Rev. 2024 Jul 4:150840. doi: 10.1016/j.tmrv.2024.150840. Epub ahead of print. PMID: 39019680 [N = 44]
Complexity descriptors	
A simple review includes only RCTs and includes <10 RCTs.	Chai KL, Wood EM, Estcourt LJ, Csenar M, Iannizzi C, Monsef I, Macphail A, Carrillo de Alboronz S, McQuilten Z. Immunoglobulin replacement to prevent infections in people with haematological malignancies and haematopoietic stem cell transplantation. Cochrane Database of Systematic Reviews 2024, Issue 3. Art. No.: CD015719. DOI: 10.1002/14651858.CD015719. PROTOCOL
A medium review includes only RCTs and includes between 10 and 100 RCTs. Or a	Gibbs VN, Champaneria R, Sandercock J, Welton NJ, Geneen LJ, Brunskill SJ, Dorée C, Kimber C, Palmer AJ, Estcourt LJ. Pharmacological interventions for the prevention of bleeding in people undergoing elective hip or knee surgery: a systematic review and network meta-analysis. Cochrane Database Syst Rev. 2024 Jan 16;1(1):CD013295. doi: 10.1002/14651858.CD013295.pub2. PMID: 38226724; PMCID: PMC10790339 [N = 102]
review of mixed study types with no risk of bias and statistical	Peck RC, Knapp-Wilson A, Burley K, <b>Dorée C</b> , Griffin J, Mumford AD, Stanworth S, Sharplin K. Scoping Review of Factors Associated with Stem Cell Mobilization and Collection in Allogeneic Stem Cell Donors. Transplant Cell Ther. 2024 Sep;30(9):844-863. doi: 10.1016/j.jtct.2024.06.002. Epub 2024 Jun 6. PMID: 38851322. <i>Search only</i>
analysis. A <b>complex review</b> is	Radford M, <b>Estcourt LJ</b> , Sirotich E, Pitre T, Britto J, Watson M, <b>Brunskill SJ</b> , Fergusson DA, <b>Dorée C</b> , Arnold DM. Restrictive versus liberal red blood cell transfusion strategies for people with haematological malignancies treated with intensive chemotherapy or radiotherapy, or both, with or without haematopoietic stem cell support. Cochrane Database Syst Rev. 2024 May 23;5(5):CD011305. doi: 10.1002/14651858.CD011305.pub3. PMID: 38780066; PMCID: PMC1111298 [N = 9]
any of the following includes non- randomised studies; uses methodology such	Tingle SJ, Kourounis G, Liu F, Wilson CH, Richardson R, <b>Sandercock J.</b> Simple tool implementing Bucher's method for indirect treatment comparisons in meta-analyses. BMJ Evid Based Med. 2024 Jul 30:bmjebm-2024-113103. doi: 10.1136/bmjebm-2024-113103. Epub ahead of print. PMID: 39079909 Statistical Support only
as IPD or NMA; includes	Going through peer review:
more than 100 studies	• A systematic review of alloimmunisation in RhD negative patients following the transfusion of RhD positive platelets. [N = 31]
or is a significant update of an already	• Is there a difference in clinical outcomes between ABO identical compared to ABO non-identical platelets for patients receiving a platelet transfusion? [N = 40]
published systematic	• Pathogen Reduced Platelets for the prevention of bleeding. (Cochrane) [N= 16].
review, for example	• Red cell transfusion management for patients undergoing cardiac surgery for congenital heart disease. (Cochrane) [N = 20.
requires a total rewrite of methods and therefore extraction	• Strategies for use of blood products for major bleeding in trauma (Cochrane) – substantial update as new search added during peer review and 6 new studies identified [N = 19]
and analysis of already included data.	

Section	Our Evidence
Collaborations with	We have collaborated with many clinicians and researchers over the last 12 months. Their names and affiliations are provided here:
people outside the SRI.	
These have been	Stem Cell Evidence:
grouped by type of	Dr James Griffin – NHSBT, UK.
project.	Mr John Muth - Evidentia Publishing, UK.
	Mr Mark Schregardus – Evidentia Publishing, The Netherlands.
New collaborators this year are identified by	Mr Michael Studman - Evidentia Publishing, UK.
an * at the beginning of	Transfusion Evidence Round-Ups
their details.	Dr Gwen Clarke – University of Alberta, Calgary, Canada.
	Beatriz Galindo – ISBT Central Office, The Netherlands.
	Eszter Herczenik – ISBT Central Office, The Netherlands.
	Dr Victor Lin – The Royal Melbourne Hospital, Australia.
	Dr Allison Mo - Monash University, Melbourne, Australia.
	Marion Molliet – ISBT Central Office, The Netherlands.
	Dr Harriet Tucker – St George's University Hospital, London, UK
	Jenny White – Executive Director, ISBT, The Netherlands.
	Professor Erica Wood - Transfusion Research Unit, Melbourne, Australia.
	Systematic review collaborators:
	Dr Alisha Allana - University Hospital Southampton NHS Foundation Trust, UK.
	Dr Cath Booth – Royal Barts NHS Trust, UK.
	Dr Lorna Cain – NHSBT, UK.
	Dr Rebecca Cardigan - NHSBT, UK.
	Dr Nikki Curry - Oxford University Hospitals NHS Foundation Trust, UK.
	*Zareen Deplano – NHSBT.
	Paula Dhiman – University of Oxford, Oxford, UK.
	Dr Arthur Disegna - University of Oxford, Oxford, UK.
	Dr Vishakha Erasu - Oxford University Hospitals NHS Foundation Trust, UK.
	A/Prof Jez Fabes – Peninsula Medical School & Derriford Hospital, Plymouth, UK.
	Professor Laura Green – NHSBT & Barts Health NHS Trust, UK.
	Dr Alvin Katumba - Oxford University Hospitals NHS Foundation Trust, UK.
	*Dr Jade King - NHSBT & Barts Health NHS Trust, UK.
	*Fiona Hunt – NHSBT & NHS Lothian, Scotland.
	*Dr Lizzie Hutchinson - Oxford University Hospitals NHS Foundation Trust, UK.

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	Dr Eleni Louka - Great Ormand Street Hospital, London, UK.
	Mr. Devender Mittapalli - University Hospitals Plymouth NHS Trust, UK.
	Dr Allison Mo - Monash University, Melbourne, Australia.
	Dr Gaurav Nigam - Oxford University Hospitals NHS Foundation Trust, UK
	Dr Alex Novak - Oxford University Hospitals NHS Foundation Trust, UK
	Vanessa Piechotta – Cochrane Haematology, Cologne, Germany.
	Dr Matthew Poynton - Oxford University Hospitals NHS Foundation Trust, UK.
	Sue Proffitt - NHSBT, UK.
	A/Professor Noemi Roy - Oxford University Hospitals NHS Foundation Trust, UK
	*Dr Nikolaos Sousos – University of Oxford, UK.
	*Dr Sam Tingle -
	Professor Nicky Welton – University of Bristol, UK.
	Dr Kirstin Wilkinson – University Hospital Southampton NHS Foundation Trust, UK.
	Dr Mike Wiltshire - NHSBT, UK Professor Erica Wood - Transfusion Research Unit, Melbourne, Australia
Further Funding	Two funding applications were made between November 2023 and November 2024
	1. Lise Estcourt applied to NHSBT small research grants in late 2023 for funds to support the health economic work being planned for out 'plasma exchanged versus
	IVIG in neurologic al patients.' The application for £68,000 was successful.
	2. Susan Brunskill applied to NHSBT NIHR Research Capability Funds in May 2024 for the salary costs for the sole member of salaried staff working on the Transplant
	Library for the financial year March 2024 to March 2025. The application was for £47,000. The application was successful.
Next Destination &	No one has left the SRI within the last 12 months.
Skills	
<b>Engagement Activities</b>	Transfusion Evidence Round-Up
	In 2021, we have teamed up with ISBT to produce a quarterly Transfusion Evidence Round-Up. Four Round-Ups have been published in the last 12 months:
	• The Best of the Transfusion Evidence Library (18 <sup>th</sup> December 2023)
	World Kidney Day (14 March 2024)
	International Children's Day (12 May 2024)
	World Trauma Day (17 <sup>th</sup> October 2024)
	For the last 18 months, each Round-Up has been followed up by a live, one hour webinar, co-chaired by Dr Allison Mo and the SRI team. During these webinars, each of the three members of the ISBT community who chose the 10 references for the Round-Up talk through their 'top' record of the 10 selected records. The webinars are hosted by

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	ISBT and are open to anyone within the ISBT community. The June Round-Up webinar was presented as an invited workshop at the ISBT annual conference on 25 <sup>th</sup> June 2024, with the collaboration of Susan Brunskill and Catherine Kimber.
	We have had very positive feedback from all webinars but have decided to explore whether a podcast would be a better accessibility option for an international audience. The first podcast was recorded for the World Trauma Day Round-Up and was released to coincide with the release of the Round-Up.
	Each Round-Up is promoted on Twitter/X through the SRI, Transfusion Evidence Library and ISBT feeds. We have reviewed analytics data following each Round-Up and take up continues to be similar to that of the monthly evidence alerts.
	<ul> <li>Social media activity:</li> <li>We run 3 Twitter/X accounts and 3 LinkedIn accounts: one for each of our electronic libraries and one for the SRI overall. Our activity on these accounts is our principal online presence strategy and consists of:         <ul> <li>Creating and sharing visual infographics for each newly published systematic review</li> <li>Sharing the PICO summary for each record featured in our monthly Evidence Alerts and quarterly Round-Ups</li> <li>We also maintain a Facebook account for each of the libraries, although our primary focus remains Twitter/X.</li> </ul> </li> </ul>
	<ul> <li>Our Twitter/X accounts have a combined total of 4,719 followers:</li> <li>579 [up from 548 in October 2023] for Stem Cell Evidence</li> <li>3456 [up from 3303 in October 2023] for Transfusion Evidence Library</li> <li>684 [up from 576 in October 2023] for SRI.</li> </ul>
	Visual Infographics are created by Alicia and revies authors for all new publications and made available on our Twitter, LinkedIn, and Facebook accounts. We also post details of the PICO criteria of all papers that appear in a Round-Up top 10 on our relevant Twitter accounts.
	<ul> <li>Talks, Podcasts and Presentations</li> <li>Members of the SRI have given the following talks and workshops over the last year:</li> <li>Lise Estcourt led a session on 'Major Haemorrhage' and two panel discussions, one each on 'major haemorrhage' and 'research' at the ISBT Highlight Day &amp; 15<sup>th</sup> Arab</li> </ul>
	<ul> <li>Lise Estcourt fed a session on Major memorinage and two panel disessions, one cach on major memorinage and research at the ison major memorinage and two panel disessions, one cach on major memorinage and research at the ison major magninght bay &amp; 15 Anab Transfusion Medicine Forum, Egypt, [virtual sessions] in January 2024.</li> <li>Lise Estcourt delivered a presentation on BTRU, Donor Health and Behaviour, 'The Danish Blood Donor Study' current research and future possibilities, in Denmark, in January 2024.</li> </ul>
	<ul> <li>Susan Brunskill delivered a talk on What is a systematic review, to the Statistics and Clinical Research Seminar Series, virtual 26<sup>th</sup> March 2024</li> <li>Catherine Kimber managed a stand dedicated to Stem Cell Evidence at the EBMT annual conference, Glasgow, April 2024.</li> </ul>

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	<ul> <li>Lise Estcourt delivered a talk on 'Passive immunotherapy for COVID-19 - focus on Covid Convalescent Plasma and Hyper-IVIG', at ICTMG/AABB meeting, Washington, US, May 2024.</li> </ul>
	• Susan Brunskill and Catherine Kimber delivered a workshop on "How to review an article: Interactive workshop with the experts" at ISBT annual conference, Barcelona, June 2024.
	• Lise Estcourt delivered a talk on 'Risk of ABO incompatible platelets and plasma' at ISBT annual conference, Barcelona, Spain, June 2024.
	• Lise Estcourt delivered a talk on 'Dealing with the risk of incompatible transfusions' at ISBT annual conference, Barcelona, Spain, June 2024.
	• Alicia Plaza Cajide managed a stand dedicated to the Transfusion Evidence Library at the SHOT annual symposium, Manchester, 9 <sup>th</sup> July 2024.
	• Susan Brunskill managed a stand dedicated to the Transfusion Evidence Library at the BBTS annual conference, Glasgow, 16 to 19 September 2024.
	• Lise Estcourt delivered a talk on 'National: Transfusion Transformation - Appropriate blood use- ensuring there is blood available for those that need it 'at the BBTS annual conference, Glasgow, 16 to 19 September 2024.
	• Josie Sandercock delivered a talk on 'Challenges extracting data from the literature: what researchers can do to maximise the impact of their research by reporting the details needed for systematic review', to the Statistics and Clinical Research Seminar Series, virtual 17 <sup>th</sup> October 2024.
	• Susan Brunskill delivered a talk to second year students on the NHSBT support MSc in Transfusion and Transplantation on 'The differences between a systematic review and literature review', virtual 7 <sup>th</sup> October 2024.
	• Susan Brunskill delivered a talk to first year students on the NHSBT support MSc in Transfusion and Transplantation on 'Establishing strength of evidence required for research and study designs', virtual 15 <sup>th</sup> October 2024.
	• Louise Geneen delivered a talk to first year students on the NHSBT support MSc in Transfusion and Transplantation on 'Critical Appraisal and Risk of Bias', virtual 29 <sup>h</sup> October 2024.
	Presented <i>posters</i> at the following conferences:
	• Catherine Kimber on Safety and effectiveness of irradiated platelets for transfusion: systematic review and meta-analysis of in-vitro, in-vivo, and clinical outcomes", 8th International Congress of the ISBT, Barcelona, Spain, June 2024.
	• Lise Estcourt on Pathogen-reduced platelets for the prevention of bleeding: systematic review and meta-analysis (an update, 8th International Congress of the ISBT, Barcelona, Spain, June 2024.
	• Susan Brunskill on Statistical analysis of split sample laboratory studies: observations from a systematic review of irradiated platelets, 8th International Congress of the ISBT, Barcelona, Spain, June 2024.
	• Louise Geneen on Development and use of a new risk of bias (ROB) tool for use in paired sample (in-vitro) laboratory studies, Cochrane/Global Evidence Summit, Prague, September 2024.
	Recorded the following <i>webinars</i> and <i>podcasts</i> :
	• Catherine Kimber and Susan Brunskill facilitated the ISBT Live Journal Club Transfusion Evidence Round-Up: Best of the Transfusion Evidence Library December 2023

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	<ul> <li>For Cochrane, Naomi Gibbs on 'What is the best medication to stop bleeding in those having non-emergency hip or knee surgery? Using data from the Cochrane review Pharmacological interventions for the prevention of bleeding in people undergoing elective hip or knee surgery: a systematic review and network meta-analysis, 7<sup>th</sup> March 2024.</li> <li>For the Transfusion Evidence Round-Up focused on World Kidney Day, Catherine Kimber and Susan Brunskill, facilitated a webinar on the top 3 reviewers' choices, March 2024.</li> <li>'Talking Transfusion 1', Catherine Kimber and Susan Brunskill, a podcast for the Transfusion Evidence Round-Up which presented papers relevant to World Trauma Day on 17<sup>th</sup> October 2024.</li> </ul>
	<ul> <li>Teaching and support activities that the SRI staff provide to Clinical Fellows and other staff through the year.</li> <li>All systematic reviewers within the SRI have provided training on systematic review processes and methodology for all our completed and ongoing systematic reviews. Further, we have:</li> <li>Provided training on how to use Covidence for screening for all new reviewers [as asterixed in 'Systematic Review Collaborators on pages 4 and 5]: all SRI team members.</li> <li>Provided project management support and advice to a new Clinical Fellow, Dr Lorna Cain: Louise Geneen</li> <li>Provided training on 'how to do an overview' to Dr Alwyn Kotze: Lise Estcourt</li> </ul>
	<ul> <li>Co-developed a Risk of Bias tool for laboratory studies and provided data management support for the Universal Irradiation systematic review: Louise Geneen, Josie Sandercock, Catherine Kimber, Lise Estcourt.</li> <li>Provided support on how to use RevManWeb to Dr Alwyn Kotze: Lise Estcourt and Dr Kirstin Wilkinson: Catherine Kimber.</li> <li>Providing statistical advice on two research projects being undertaken by people outside NHSBT: Josie Sandercock.</li> </ul>
	SRI website. In December 2022, we again explored creating a stand alone SRI website, rather than only having a sub-site of the JPAC transfusion guidelines website (https://www.transfusionguidelines.org/systematic-review-initiative). Following a tender process in late 2023, we contracted in January 2024 with Mixd, "a digital agency committed to the public sector" https://www.mixd.co.uk/. It has been an interesting 10 months since, but we now have a new website that will be live by the end of 2024. Currently the website is going through extensive usability testing and all required policies [cookies, accessibility terms of reference and privacy] are being reviewed by the relevant department within NHSBT. We will be using the same domain name as we have always used, which is www.systematicreviewinitiative.com
Influence on Policy	We explored 'influence on policy' by searching for guidelines in which our reviews have been cited since the last meeting. From November 2023 to November 2024, 32 inter- national guidelines have been published which have been informed by 35 SRI systematic reviews (57 citations):
	1.       2024 EACTS/EACTAIC Guidelines on patient blood management in adult cardiac surgery in collaboration with EBCP (2024)         Casselman FPA, Lance MD, Ahmed A, Ascari A, Blanco-Morillo J, Bolliger D, et al. European Journal of Cardio-Thoracic Surgery. 2024:ezae352.

Section	Our Evidence
	9 Systematic Reviews:
	i) Carson JL, Stanworth SJ, Roubinian N, Fergusson DA, Triulzi D, Doree C, et al. Transfusion thresholds and other strategies for guiding allogeneic red blood cell transfusion. <i>The Cochrane Database of Systematic Reviews</i> . 2016;10:CD002042. PubMed ID: 27731885.
	ii) Desborough M, Sandu R, Brunskill SJ, Doree C, Trivella M, Montedori A, et al. Fresh frozen plasma for cardiovascular surgery. <i>The Cochrane Database of Systematic Reviews</i> . 2015;7:CD007614. PubMed ID: 26171897.
	iii) Desborough MJ, Oakland K, Brierley C, Bennett S, Doree C, Trivella M, et al. Desmopressin use for minimising perioperative blood transfusion. The Cochrane Database of Systematic Reviews. 2017;7:CD001884. PubMed ID: 28691229.
	<ul> <li>iv) Desborough MJ, Oakland KA, Landoni G, Crivellari M, Doree C, Estcourt LJ, et al. Desmopressin for treatment of platelet dysfunction and reversal of antiplatelet agents: a systematic review and meta-analysis of randomized controlled trials. <i>Journal of Thrombosis and Haemostasis : JTH</i>. 2017;15(2):263-72. PubMed ID: 27893176.</li> <li>v) Estcourt LJ, Malouf R, Doree C, Trivella M, Hopewell S, Birchall J. Prophylactic platelet transfusions prior to surgery for people with a low platelet count. <i>The Cochrane Database of Systematic Reviews</i>. 2018;9:CD012779. PubMed ID: 30221749.</li> </ul>
	vi) Lloyd TD, Geneen LJ, Bernhardt K, McClune W, Fernquest SJ, Brown T, et al. Cell salvage for minimising perioperative allogeneic blood transfusion in adults undergoing elective surgery. <i>The Cochrane Database of Systematic Reviews</i> . 2023;9:CD001888. PubMed ID: 37681564.
	vii) Simpson E, Lin Y, Stanworth S, Birchall J, Doree C, Hyde C. Recombinant factor VIIa for the prevention and treatment of bleeding in patients without haemophilia. <i>The Cochrane Database of Systematic Reviews</i> . 2012;3:CD005011. PubMed ID: 22419303.
	viii) Stanworth SJ, Brunskill SJ, Hyde CJ, McClelland DB, Murphy MF. Is fresh frozen plasma clinically effective? A systematic review of randomized controlled trials. British Journal of Haematology. 2004;126(1):139-52. PubMed ID: 15198745.
	ix) Yang L, Stanworth S, Hopewell S, Doree C, Murphy M. Is fresh-frozen plasma clinically effective? An update of a systematic review of randomized controlled trials. <i>Transfusion</i> . 2012;52(8):1673-86; quiz PubMed ID: 22257164.
	2. <b>Strategies to prevent blood loss and reduce transfusion in emergency general surgery, WSES-AAST consensus paper</b> (2024) Coccolini F, Shander A, Ceresoli M, Moore E, Tian B, Parini D, et al. <i>World journal of emergency surgery : WJES</i> . 2024;19(1):26. <i>4 Systematic Reviews:</i>
	i) Desborough MJ, Oakland K, Brierley C, Bennett S, Doree C, Trivella M, et al. Desmopressin use for minimising perioperative blood transfusion. <i>The Cochrane Database of Systematic Reviews</i> . 2017;7:CD001884. PubMed ID: 28691229.
	<ul> <li>ii) Desborough MJ, Oakland KA, Landoni G, Crivellari M, Doree C, Estcourt LJ, et al. Desmopressin for treatment of platelet dysfunction and reversal of antiplatelet agents: a systematic review and meta-analysis of randomized controlled trials. <i>Journal of Thrombosis and Haemostasis : JTH</i>. 2017;15(2):263-72. PubMed ID: 27893176.</li> <li>iii) Fabes J, Brunskill SJ, Curry N, Doree C, Stanworth SJ. Pro-coagulant haemostatic factors for the prevention and treatment of bleeding in people without haemophilia. <i>The Cochrane Database of Systematic Reviews</i>. 2018;12:CD010649. PubMed ID: 30582172.</li> </ul>
	iv) Simpson E, Lin Y, Stanworth S, Birchall J, Doree C, Hyde C. Recombinant factor VIIa for the prevention and treatment of bleeding in patients without haemophilia. <i>The Cochrane Database of Systematic Reviews</i> . 2012;3:CD005011. PubMed ID: 22419303.
	3.Red Blood Cell Transfusion: 2023 AABB International Guidelines (2023)Carson JL, Stanworth SJ, Guyatt G, Valentine S, Dennis J, Bakhtary S, et al. Jama. 2023;330(19):1892-902.

Section	Our Evidence
	3 Systematic Reviews:
	i) Carson JL, Stanworth SJ, Dennis JA, Trivella M, Roubinian N, Fergusson DA, et al. Transfusion thresholds for guiding red blood cell transfusion. <i>The Cochrane Database of Systematic Reviews</i> . 2021;12:CD002042. PubMed ID: 34932836.
	ii) Hibbs SP, Brunskill SJ, Donald GC, Saunders HD, Murphy MF. Setting priorities for research in blood donation and transfusion: outcome of the James Lind Alliance priority- setting partnership. <i>Transfusion</i> . 2019;59(2):574-81. PubMed ID: 30506972.
	iii) Stanworth SJ, New HV, Apelseth TO, Brunskill S, Cardigan R, Doree C, et al. Effects of the COVID-19 pandemic on supply and use of blood for transfusion. <i>The Lancet Haema-tology</i> . 2020;7(10):e756-e64. PubMed ID: 32628911.
	4. Patient blood management guideline for adults with critical bleeding (2024) Australia NBA. 2024.
	3 Systematic Reviews: i) Curry N, Hopewell S, Dorée C, Hyde C, Brohi K, Stanworth S. The acute management of trauma hemorrhage: a systematic review of randomized controlled trials. Critical Care (London, England). 2011;15(2):R92. PubMed ID: 21392371.
	ii) Fabes J, Brunskill SJ, Curry N, Doree C, Stanworth SJ. Pro-coagulant haemostatic factors for the prevention and treatment of bleeding in people without haemophilia. <i>The Cochrane Database of Systematic Reviews</i> . 2018;12:CD010649. PubMed ID: 30582172.
	iii) Simpson E, Lin Y, Stanworth S, Birchall J, Doree C, Hyde C. Recombinant factor VIIa for the prevention and treatment of bleeding in patients without haemophilia. <i>The Cochrane Database of Systematic Reviews</i> . 2012;3:CD005011. PubMed ID: 22419303.
	5. Perioperative thrombocytopenia: review of current recommendations and implementation in clinical practice (2023)
	Ploshchenko YO, Novikov SP, Gavrish KV, Kusch VM, Karas RK. <i>Emergency Medicine (Ukraine)</i> . 2023;19(4):274-86. 3 Systematic Reviews:
	i) Desborough MJ, Oakland K, Brierley C, Bennett S, Doree C, Trivella M, et al. Desmopressin use for minimising perioperative blood transfusion. <i>The Cochrane Database of Systematic Reviews</i> . 2017;7:CD001884. PubMed ID: 28691229.
	ii) Estcourt LJ, Malouf R, Doree C, Trivella M, Hopewell S, Birchall J. Prophylactic platelet transfusions prior to surgery for people with a low platelet count. <i>The Cochrane Database of Systematic Reviews</i> . 2018;9:CD012779. PubMed ID: 30221749.
	iii) Estcourt LJ, Malouf R, Hopewell S, Doree C, Van Veen J. Use of platelet transfusions prior to lumbar punctures or epidural anaesthesia for the prevention of complications in people with thrombocytopenia. <i>The Cochrane Database of Systematic Reviews</i> . 2018;4:CD011980. PubMed ID: 29709077.
	6. Patient blood management in major digestive surgery Recommendations from the Italian multisociety (ACOI, SIAARTI, SIdEM, and SIMTI) modified Delphi con- sensus conference (2024)
	Catarci M, Tritapepe L, Rondinelli MB, Beverina I, Agostini V, Buscemi F, et al. Giornale di Chirurgia. 2024;44(1):E41.
	3 Systematic Reviews: i) Carson JL, Stanworth SJ, Dennis JA, Trivella M, Roubinian N, Fergusson DA, et al. Transfusion thresholds for guiding red blood cell transfusion. The Cochrane Database of Systematic Reviews. 2021;12:CD002042. PubMed ID: 34932836.
	ii) Desborough MJ, Oakland K, Brierley C, Bennett S, Doree C, Trivella M, et al. Desmopressin use for minimising perioperative blood transfusion. <i>The Cochrane Database of</i>

Section	Our Evidence
	Customentia Deviewe 2017;7:CD001994 DubMad ID: 20001220
	Systematic Reviews. 2017;7:CD001884. PubMed ID: 28691229. iii) Shah AA, Donovan K, Seeley C, Dickson EA, Palmer AJR, Doree C, et al. Risk of Infection Associated With Administration of Intravenous Iron: A Systematic Review and Meta-
	analysis. Jama Network Open. 2021;4(11):e2133935. PubMed ID: 34767026.
	7. Perioperative Patient Blood Management (excluding obstetrics): Guidelines from the French National Authority for Health (2024)
	Theissen A, Folléa G, Garban F, Carlier M, Pontone S, Lassale B, et al. <i>Anaesthesia Critical Care and Pain Medicine</i> . 2024;43(5 C7 - 101404). 3 Systematic Reviews:
	i) Brunskill SJ, Millette SL, Shokoohi A, Pulford EC, Doree C, Murphy MF, et al. Red blood cell transfusion for people undergoing hip fracture surgery. <i>The Cochrane Database of Systematic Reviews</i> . 2015;4:CD009699. PubMed ID: 25897628.
	ii) Carson JL, Stanworth SJ, Roubinian N, Fergusson DA, Triulzi D, Doree C, et al. Transfusion thresholds and other strategies for guiding allogeneic red blood cell transfusion. The Cochrane Database of Systematic Reviews. 2016;10:CD002042. PubMed ID: 27731885.
	iii) Docherty AB, O'Donnell R, Brunskill S, Trivella M, Doree C, Holst L, et al. Effect of restrictive versus liberal transfusion strategies on outcomes in patients with cardiovascular disease in a non-cardiac surgery setting: systematic review and meta-analysis. <i>BMJ (Clinical research ed)</i> . 2016;352:i1351. PubMed ID: 27026510.
	8. Guidelines for the diagnosis and management of adult aplastic anaemia: A British Society for Haematology Guideline (2024)
	Kulasekararaj A, Cavenagh J, Dokal I, Foukaneli T, Gandhi S, Garg M, et al. British Journal of Haematology. 2024;204(3):784-804. 2 Systematic Reviews:
	i) Carson JL, Stanworth SJ, Alexander JH, Roubinian N, Fergusson DA, Triulzi DJ, et al. Clinical trials evaluating red blood cell transfusion thresholds: An updated systematic review and with additional focus on patients with cardiovascular disease. <i>American Heart Journal</i> . 2018;200:96-101. PubMed ID: 29898855.
	ii) Estcourt L, Stanworth S, Doree C, Hopewell S, Murphy MF, Tinmouth A, et al. Prophylactic platelet transfusion for prevention of bleeding in patients with haematological disorders after chemotherapy and stem cell transplantation. <i>The Cochrane Database of Systematic Reviews</i> . 2012;5:CD004269. PubMed ID: 22592695.
	9. <b>Consensus of the Brazilian association of hematology, hemotherapy and cellular therapy on patient blood management: Anemia tolerance</b> (2024) De Santis GC, Costa L, Brunetta DM, Magnus MM, Benites BD, Rodrigues RDR, et al. <i>Hematology, Transfusion and Cell Therapy</i> . 2024;46:S67-S71. 2 Systematic Reviews:
	i) Carson JL, Stanworth SJ, Roubinian N, Fergusson DA, Triulzi D, Doree C, et al. Transfusion thresholds and other strategies for guiding allogeneic red blood cell transfusion. <i>The Cochrane Database of Systematic Reviews</i> . 2016;10:CD002042. PubMed ID: 27731885.
	ii) Docherty AB, O'Donnell R, Brunskill S, Trivella M, Doree C, Holst L, et al. Effect of restrictive versus liberal transfusion strategies on outcomes in patients with cardiovascular disease in a non-cardiac surgery setting: systematic review and meta-analysis. <i>BMJ (Clinical research ed)</i> . 2016;352:i1351. PubMed ID: 27026510.
	10. Guidelines for the Administration of Blood Products (2024)
	ANZSBT. 2024. 2 Systematic Reviews:
	i) Blest A, Roberts M, Murdock J, Watson D, Brunskill S. How often should a red blood cell administration set be changed while a patient is being transfused? A commentary
	and review of the literature. <i>Transfusion Medicine (Oxford, England)</i> . 2008;18(2):121-33. PubMed ID: 18399846.

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	ii) Murdock J, Watson D, Dorée CJ, Blest A, Roberts MM, Brunskill SJ. Drugs and blood transfusions: dogma- or evidence-based practice? <i>Transfusion Medicine (Oxford, Eng-land)</i> . 2009;19(1):6-15. PubMed ID: 19302450.
	11. <b>Evidence-Based Neonatal Transfusion Guidelines</b> (2023) Ohls RK. <i>Principles of Neonatology</i> . 2023:380-6. <i>1 Systematic Review:</i>
	Venkatesh V, Khan R, Curley A, Hopewell S, Doree C, Stanworth S. The safety and efficacy of red cell transfusions in neonates: a systematic review of randomized controlled trials. <i>British Journal of Haematology</i> . 2012;158(3):370-85. PubMed ID: 22639894.
	12. <b>Methodologic Quality and Pharmacotherapy Recommendations for Patient Blood Management Guidelines for Cardiac Surgery on Cardiopulmonary Bypass</b> (2024) Huang X, Du P, Jia H, Wang A, Hua Y, Liu X, et al. <i>Journal of cardiothoracic and vascular anesthesia</i> . 2024;38(7):1569-76. <i>1 Systematic Review:</i>
	Simpson E, Lin Y, Stanworth S, Birchall J, Doree C, Hyde C. Recombinant factor VIIa for the prevention and treatment of bleeding in patients without haemophilia. <i>The Cochrane Database of Systematic Reviews</i> . 2012;3:CD005011. PubMed ID: 22419303.
	13. <b>Management of peri-surgical anemia in elective surgery. Conclusions and recommendations according to Delphi-UCLA methodology</b> (2024) Moral V, Abad Motos A, Jericó C, Antelo Caamaño ML, Ripollés Melchor J, Bisbe Vives E, et al. <i>Revista Espanola de Anestesiologia y Reanimacion</i> . 2024;71(6):454-65. <i>1 Systematic Review:</i>
	Shah AA, Donovan K, Seeley C, Dickson EA, Palmer AJR, Doree C, et al. Risk of Infection Associated With Administration of Intravenous Iron: A Systematic Review and Meta- analysis. Jama Network Open. 2021;4(11):e2133935. PubMed ID: 34767026.
	14. <b>ESPEN practical short micronutrient guideline</b> (2024) Berger MM, Shenkin A, Dizdar OS, Amrein K, Augsburger M, Biesalski HK, et al. <i>Clinical Nutrition</i> . 2024;43(3):825-57. <i>1 Systematic Review:</i>
	Shah AA, Donovan K, Seeley C, Dickson EA, Palmer AJR, Doree C, et al. Risk of Infection Associated With Administration of Intravenous Iron: A Systematic Review and Meta- analysis. Jama Network Open. 2021;4(11):e2133935. PubMed ID: 34767026.
	15. Federation of Obstetric and Gynecological Societies of India Consensus Recommendations for the Management of Postpartum Anemia with Specific Reference to Usage of Ferric Carboxymaltose (2024)
	Sekaran SK, Mukherjee B, Sharma JB, Wagh G, Bapat K, Wani R, et al. Journal of South Asian Federation of Obstetrics and Gynaecology. 2024;16(S1):S43-S9. 1 Systematic Review:
	Parker JA, Barroso F, Stanworth SJ, Spiby H, Hopewell S, Doree CJ, et al. Gaps in the evidence for prevention and treatment of maternal anaemia: a review of systematic reviews. <i>BMC pregnancy and childbirth</i> . 2012;12:56. PubMed ID: 22727258.
	16. AASLD Practice Guidance on risk stratification and management of portal hypertension and varices in cirrhosis (2024)

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	Kaplan DE, Ripoll C, Thiele M, Fortune BE, Simonetto DA, Garcia-Tsao G, et al. <i>Hepatology</i> . 2024;79(5):1180-211.
	1 Systematic Review:
	Odutayo A, Desborough MJ, Trivella M, Stanley AJ, Dorée C, Collins GS, et al. Restrictive versus liberal blood transfusion for gastrointestinal bleeding: a systematic review and meta-analysis of randomised controlled trials. <i>The Lancet Gastroenterology &amp; Hepatology</i> . 2017;2(5):354-60. PubMed ID: 28397699.
	17. Guidelines for the diagnosis and treatment of acute non-variceal upper gastrointestinal bleeding in Chinese children (2024)
	Subspecialty Group of Gastroenterology, the Society of Pediatrics, Chinese Medical Association; National Clinical Research Center for Child Health Children's Digestive Disease
	Diagnosis and Treatment Collaborative Innovation Alliance; Editorial Board, Chinese Journal of Pediatrics. <i>Chinese Journal of Pediatrics</i> . 2024;62(7):596-606.parker 1 Systematic Review:
	Odutayo A, Desborough MJ, Trivella M, Stanley AJ, Dorée C, Collins GS, et al. Restrictive versus liberal blood transfusion for gastrointestinal bleeding: a systematic review and
	meta-analysis of randomised controlled trials. The Lancet Gastroenterology & Hepatology. 2017;2(5):354-60. PubMed ID: 28397699.
	18. Toward a more patient-centered drug development process in clinical trials for patients with myelodysplastic syndromes/neoplasms (MDS): Practical considera-
	tions from the International Consortium for MDS (icMDS) (2024) Efficace F, Buckstein R, Abel GA, Giesinger JM, Fenaux P, Bewersdorf JP, et al. <i>HemaSphere</i> . 2024;8(5):e69.
	1 Systematic Review:
	Mo A, Poynton M, Wood E, Shortt J, Brunskill SJ, Doree C, et al. Do anemia treatments improve quality of life and physical function in patients with myelodysplastic syndromes (MDS)? A systematic review. <i>Blood Reviews</i> . 2023;61:101114. PubMed ID: 37479599.
	19. <b>Perioperative management of patients with hemostatic system disorders. Methodological recommendations of the All-Russian public organization "Federation of Anesthesiologists and Reanimatologists" and the National Association of Specialists in Thrombosis, Clinical Hemostasiology and Hemorheology</b> (2024) Zabolotskikh IB, Sinkov SV, Bulanov AY, Vorobyova NA, Eremenko AA, Kuzovlev AN, et al. <i>Annals of Critical Care</i> . 2024;2024(1):7-46. <i>1 Systematic Review:</i>
	McQuilten ZK, Crighton G, Engelbrecht S, Gotmaker R, Brunskill SJ, Murphy MF, et al. Transfusion interventions in critical bleeding requiring massive transfusion: a systematic review. <i>Transfusion Medicine Reviews</i> . 2015;29(2):127-37. PubMed ID: 25716645.
	20. Consensus of the Brazilian association of hematology, hemotherapy and cellular therapy on patient blood management: Acute normovolemic hemodilution and intraoperative autotransfusion (2024)
	Perini FV, Montano-Pedroso JC, Oliveira LC, Donizetti E, Rodrigues RDR, Rizzo SRCP, et al. Hematology, Transfusion and Cell Therapy. 2024;46:S48-S52.
	1 Systematic Review:
	Lloyd TD, Geneen LJ, Bernhardt K, McClune W, Fernquest SJ, Brown T, et al. Cell salvage for minimising perioperative allogeneic blood transfusion in adults undergoing elective
	surgery. The Cochrane Database of Systematic Reviews. 2023;9:CD001888. PubMed ID: 37681564.
	21. Albumin: a comprehensive review and practical guideline for clinical use (2024)
	Abedi F, Zarei B, Elyasi S. European Journal of Clinical Pharmacology. 2024;80(8):1151-69.

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	1 Systematic Review: Kohli R, Geneen LJ, Brunskill SJ, Doree C, Estcourt L, Chee SEJ, et al. Assessing efficacy and safety of replacement fluids in therapeutic plasma exchange: A systematic scoping review of outcome measures used. Journal of Clinical Apheresis. 2022; 37(5):438-448. PubMed ID: 35726507.
	22. <b>A British Society for Haematology guideline on the assessment and management of bleeding risk prior to invasive procedures</b> (2024) Lester W, Bent C, Alikhan R, Roberts L, Gordon-Walker T, Trenfield S, et al. <i>British Journal of Haematology</i> . 2024;204(5):1697-713. <i>1 Systematic Review:</i>
	Huber J, Stanworth SJ, Doree C, Fortin PM, Trivella M, Brunskill SJ, et al. Prophylactic plasma transfusion for patients without inherited bleeding disorders or anticoagulant use undergoing non-cardiac surgery or invasive procedures. <i>The Cochrane Database of Systematic Reviews</i> . 2019;11:CD012745. PubMed ID: 31778223.
	23. Consensus of the Brazilian association of hematology, hemotherapy and cellular therapy on patient blood management: Assessment and management of postop- erative anemia (2024)
	Benites BD, Magnus MM, Costa L, Brunetta DM, Rodriges RDR, Alves SDOC, et al. <i>Hematology, Transfusion and Cell Therapy</i> . 2024;46:S72-S6. <i>1 Systematic Review:</i>
	Geneen LJ, Kimber C, Doree C, Stanworth S, Shah A. Efficacy and Safety of Intravenous Iron Therapy for Treating Anaemia in Critically ill Adults: A Rapid Systematic Review with Meta-Analysis. <i>Transfusion Medicine Reviews</i> . 2021 PubMed ID: 35031197.
	24. Blood Donation in the EU: Exploring Behavioural Insights for Innovative Interventions. A literature review and an overview of the blood donation landscape in the EU (2023)
	Vuletić Čugalj DF, E.; Baggio, M; Bruns, H. In: Commission E, editor.: Publications Office of the European Union, Luxembourg. 1 Systematic Review:
	Fisher SA, Allen D, Dorée C, Naylor J, Di Angelantonio E, Roberts DJ. Interventions to reduce vasovagal reactions in blood donors: a systematic review and meta-analysis. <i>Trans-</i> <i>fusion Medicine (Oxford, England)</i> . 2016;26(1):15-33. PubMed ID: 27061617.
	25. <b>[S1-Guideline: Non-suppurative CNS infections of the brain and spinal cord in childhood and adolescence]</b> (2024) Häusler M. <i>Gesellschaft für Neuropädiatrie [Society for Pediatric Neurology]</i> . 2024. <i>1 Systematic Review:</i>
	Estcourt LJ, Desborough MJ, Doree C, Hopewell S, Stanworth SJ. Plasma transfusions prior to lumbar punctures and epidural catheters for people with abnormal coagulation. <i>The Cochrane Database of Systematic Reviews</i> . 2017;9:CD012497. PubMed ID: 28945930.
	26. <b>Management of chemotherapy-induced thrombocytopenia: guidance from the ISTH Subcommittee on Hemostasis and Malignancy</b> (2024) Soff G, Leader A, Al-Samkari H, Falanga A, Maraveyas A, Sanfilippo K, et al. <i>Journal of Thrombosis and Haemostasis</i> . 2024;22(1):53-60. <i>1 Systematic Review:</i>
	Estcourt LJ, Stanworth SJ, Doree C, Hopewell S, Trivella M, Murphy MF. Comparison of different platelet count thresholds to guide administration of prophylactic platelet transfusion for preventing bleeding in people with haematological disorders after myelosuppressive chemotherapy or stem cell transplantation. <i>The Cochrane Database of</i>

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	Systematic Reviews. 2015;11:CD010983. PubMed ID: 26576687.
	<ul> <li>Standardization of definition and management for bleeding disorder of unknown cause: communication from the SSC of the ISTH (2024)</li> <li>Baker RI, Choi P, Curry N, Gebhart J, Gomez K, Henskens Y, et al. <i>Journal of Thrombosis and Haemostasis</i>. 2024;22(7):2059-70.</li> </ul>
	1 Systematic Review:
	Desborough MJR, Obaji S, Lowe GC, Doree C, Thomas W. Management of surgery, menorrhagia and child-birth for patients with unclassified bleeding disorders: a systematic review of cohort studies. <i>Blood Coagulation &amp; Fibrinolysis : An International Journal in Haemostasis and Thrombosis</i> . 2021;32(6):366-72. PubMed ID: 33973892.
	28. Diagnosis and management of abnormal uterine bleeding in adolescence: An expert Consensus Statement of SIGO (Italian Society of Gynecology and Obstetrics) and SISET (Italian Society for the Study of Hemostasis and Thrombosis) (2024)
	Santi RM, Fulghesu A, Zanon E, De Candia E, Grandone E, Di Renzo G, et al. <i>Bleeding, Thrombosis and Vascular Biology</i> . 2024;3(1):Consensus Papers. <i>1 Systematic Review:</i>
	Desborough MJ, Oakland KA, Landoni G, Crivellari M, Doree C, Estcourt LJ, et al. Desmopressin for treatment of platelet dysfunction and reversal of antiplatelet agents: a systematic review and meta-analysis of randomized controlled trials. <i>Journal of Thrombosis and Haemostasis : JTH</i> . 2017;15(2):263-72. PubMed ID: 27893176.
	29. ANMCO/SIMEU consensus document on the use of reversal agents for antithrombotic therapies in patients with ongoing bleeding or at high risk of haemorrhagic events (2024)
	De Luca L, Pugliese FR, Susi B, Navazio A, Corda M, Fabbri A, et al. European Heart Journal, Supplement. 2024;26(Supplement 2):ii211-ii20. 2 Systematic Reviews:
	i) Desborough MJ, Oakland K, Brierley C, Bennett S, Doree C, Trivella M, et al. Desmopressin use for minimising perioperative blood transfusion. <i>The Cochrane Database of Systematic Reviews</i> . 2017;7:CD001884. PubMed ID: 28691229.
	ii) Desborough MJ, Oakland KA, Landoni G, Crivellari M, Doree C, Estcourt LJ, et al. Desmopressin for treatment of platelet dysfunction and reversal of antiplatelet agents: a systematic review and meta-analysis of randomized controlled trials. <i>Journal of Thrombosis and Haemostasis : JTH</i> . 2017;15(2):263-72. PubMed ID: 27893176.
	30. S2k guideline: Prehospital treatment guidelines for disaster medicine (2024)
	Rohde A, Francis R, Gräsner JT, Heller AR, Latasch L, Franke A, et al. <i>Anasthesiologie und Intensivmedizin</i> . 2024;65(1):S11-S38.
	1 Systematic Review: Curry N, Hopewell S, Dorée C, Hyde C, Brohi K, Stanworth S. The acute management of trauma hemorrhage: a systematic review of randomized controlled trials. Critical Care
	(London, England). 2011;15(2):R92. PubMed ID: 21392371.
	31. Chirurgie bij kwetsbare ouderen [Surgery in vulnerable elderly people] (2024)
	Nederlandse Vereniging voor Klinische Geriatrie [Dutch Association of Clinical Geriatrics] 1 Systematic Review:
	Brunskill SJ, Millette SL, Shokoohi A, Pulford EC, Doree C, Murphy MF, et al. Red blood cell transfusion for people undergoing hip fracture surgery. <i>The Cochrane Database of Systematic Reviews</i> . 2015;4:CD009699. PubMed ID: 25897628.

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	32. Chinese expert consensus on autologous stem cell transplantation for the treatment of heart failure (2022) (2023) Heart Regeneration Group, Tissue Repair and Regeneration Branch of the Chinese Medical Association. <i>National Medical Journal of China</i> . 2023;103(18):1376-85. <i>1 Systematic Review:</i> Fisher SA, Doree C, Mathur A, Taggart DP, Martin-Rendon E. Cochrane corner: Stem cell therapy for chronic ischaemic heart disease and congestive heart failure. <i>Heart</i> . 2018;104(1):8-10. PubMed ID: 28607164.
Research Tools & Methods	NIHR Cochrane programme grant [2]. We have used a form of analysis, network meta-analysis (NMA), for the systematic reviews being undertaken through our NIHR Cochrane programme grant.
	We continue to use <b>Covidence</b> for all our screening activities and had used Covidence to undertake data extraction for the Cochrane reviews in our NIHR Cochrane Programme Grant and our smaller systematic reviews. However, having had significant issues with extracting data using this software, we are currently not using Covidence for data extraction.
	We have had interesting internal conversations about what current AI tools being developed for evidence synthesis could add to our activity and received a demonstration of Laser AI (October 2024). We are aware of the need to stay abreast of all developments in this field but believe that the limitations of their use at the current time do not outweigh the advantages those developing these products seek to explain. For example, Laser AI does not support double data extraction and its products to support screening are based on one screeners decision making – hence, there is the assumption that the decisions of the single screener are always correct, something we know not to be the case.
Research Databases & Models	See section below: Software & Technical Products
Intellectual Property & Licensing	Conversations with NHSBT Procurement over the last few years have highlighted that aspects of our two Electronic Libraries should be registered as intellectual property, most specifically the database structure. However, the current structure of the database was developed by Evidentia Publishing and they do not think it is appropriate to apply for intellectual property for the database structure.
	There was interest within NHSBT in bringing the development and hosting of both electronic libraries in-house and, should that happen, we could explore registering intellectual property rights for the new structure of the electronic libraries. However, conversations during 2023 have highlighted that whilst there is interest from a database architecture and design perspective, there is no interest from decision-makers within NHSBT responsible for investment in resources and therefore we will not be bringing the development and hosting of both electronic libraries.

Section	Our Evidence
Section Medical Products, Interventions and Clinical Trials	<ul> <li>CLINICAL TRIALS that have developed from one of our systematic reviews in the past 12 months:</li> <li>REVIEW: Desmopressin for minimising red cell transfusion. [2017] and Desmopressin for treatment of platelet dysfunction and reversal of antiplatelet agents: a systematic review and meta-analysis of randomized controlled trials [2017]. CLINICAL TRIAL: DASH-2 trial. 1000 patient trial of desmopressin versus placebo for intracerebral haemorrhage. Funding from NIHR Research for Patient Benefit (RIPB). <i>NIHR RfPB PB-PG-0816-20011</i>.</li> <li>REVIEW: Fresh frozen plasma for cardiovascular surgery [2015] and Pro-coagulant haemostatic factors for the prevention and treatment of bleeding in people without haemophilia [2018]. CLINICAL TRIAL: RROPHESY -2 trial is assessing whether prothrombin complex concentrate (PCC) is superior to fresh frozen plasma (FFP) in patients who are actively bleeding within 24 hours of their cardiac surgery.</li> <li>REVIEW: Efficacy and Safety of Intravenous Iron Therapy for Treating Anaemia in Critically III Adults: A Rapid Systematic Review with Meta-Analysis [2022]. 1 application to NIHR EME. CLINICAL TRIAL: INTACT-2. Received NIHR funding through to 2027. Co-applicants – Simon Stanworth, Akshay Shah</li> <li>ONGOING CLINICAL TRIALS that have been developed from one of our systematic reviews:</li> <li>REVIEW: The Difference in Potential Harms between Whole Blood and Component Blood Transfusion in major Bleeding: A Rapid Systematic Review and Meta-Analysis TRIAL: SWIFT: study of Whole Blood in Frontline Trauma. A multi-centre randomised controlled trial of the clinical effectiveness and cost-effectiveness of pre-hospital versus standard care for traumatic haemorrhage. Trial status: Recruitment complete and close: October 2024.</li> <li>REVIEW: Gaps in the evidence for prevention and treatment of maternal anaemia to avoid preterm delivery and other adverse outcomes. Awarding Body: NIHR</li> <li>REVIEW: Gaps in the evidence for prevention and treatment</li></ul>
	<ul> <li>REVIEW Granulocytes for preventing infection [2016]: CLINICAL TRIAL: ProGrES: An observational study of the incidence of infectious episodes eligible for granulocyte transfusion and outcomes. Awarding Body: NHSBT. Trial currently ongoing.</li> <li>REVIEW Granulocytes for treating infection [2016]:</li> </ul>
	CLINICAL TRIAL: ProGrES: An observational study of the incidence of infectious episodes eligible for granulocyte transfusion and outcomes. Awarding Body: NHSBT. Trial currently ongoing.

Section	Our Evidence
	<ul> <li>REVIEW: Prophylactic platelet transfusions in critically ill patients [2018].</li> <li>CLINICAL TRIAL: Threshold 4 Platelets (T4P) trial, is being run from The University of Oxford. Trial dates: January 2022 to October 2026. NIHR Co-applicants – Simon Stanworth, Akshay Shah. NIHR HTA funded. <u>https://fundingawards.nihr.ac.uk/award/NIHR131822</u></li> </ul>
	<ul> <li>REVIEWS: Red blood cell transfusion in hip fracture surgery [2016] and Red cell transfusion threshold review [2020].</li> <li>CLINICAL TRIAL: RESULT-HIP (The impact of REstrictive versUs Liberal Transfusion strategy on cardiac Injury in patients undergoing surgery for Hip Fracture), is being run from The University of Edinburgh. Trial dates: August 2021 to August 2025. Co-applicants – Simon Stanworth. NIHR funded. https://fundingawards.nihr.ac.uk/award/NIHR130875</li> </ul>
	GRANT APPLICATIONS made in the last 12 months that have developed from one of our systematic reviews:
	<ul> <li><i>REVIEW:</i> Desborough MJ, Oakland K, Brierley C, Bennett S, Doree C, Trivella M, Hopewell S, Stanworth SJ. Desmopressin for minimising red cell transfusion. <i>Cochrane Database Syst Rev</i> 2017; 7(7): CD001884 and Desborough MJ, Oakland KA, Landoni G, Crivellari, Doree C, Estcourt LJ, Stanworth SJ. Desmopressin for treatment of platelet dysfunction and reversal of antiplatelet agents: a systematic review and meta-analysis of randomized controlled trials. <i>J Thromb Haemost</i> 2017; 15(2): 263-72.</li> <li>CLINICAL TRIAL: DASH-2 trial. 1000 patient trial of desmopressin versus placebo for intracerebral haemorrhage. Funding from NIHR Research for Patient Benefit (RfPB). <i>NIHR RfPB PB-PG-0816-20011</i>.</li> </ul>
Artistic & Creative Products	Nothing to report.
Software & Technical Products	<b>Transfusion Evidence Library</b> (www.transfusionevidencelibrary.com). As of October 2024, the library contains 15,988 records. Of those 10,823 are RCTs, 5,007 are Systematic Reviews and 100 are Economic Studies. We now also include RCT and systematic review protocols on the Library (34 and 7 respectively) Annual maintenance bill= £ 25,000.
	The Transfusion Evidence Library has the facility to highlight Featured Articles, and this year this functionality was used to highlight the top articles from the most recent Evidence Alerts and Round-Ups.
	Four <b>Transfusion Evidence Round-Ups</b> were emailed for the following awareness days: The Best of the Transfusion Evidence Library (5 <sup>th</sup> December 2023), World Kidney Day (14 <sup>th</sup> March 2024), International Children's Day (3 <sup>rd</sup> June 2024), World Trauma Day (17 <sup>th</sup> October 2024).
	Transfusion Evidence Library usage (taken from Google Analytics data)

Section	Our Evidence
	Between October 2023 and September 2024, the Transfusion Evidence Library (TEL) was visited from 121 countries; the TEL had 12,335 users, which is an increase in 11% in the number of users from the same period last year.
	• Between October 2023 and September 2024, TEL users by country were: 35% from USA, 13% from Australia, 9.6% from UK, 4.2% from Canada and 3.7% from Germany. Like the previous year, the USA was the country from where most visits originated.
	• Most users (80%) came to TEL directly or by typing the URL. 9.8% arrived via links sent through emails, 6.3% arrived via organic search, and 3.1% arrived from social media (X, LinkedIn or Facebook)
	Transfusion Evidence Alert We have 8,295 subscribers to the Transfusion Evidence Alert and Transfusion Evidence Round-Up.
	Transfusion Evidence Library on Twitter (now X) (@TransfusionLib). On 18 <sup>th</sup> October 2024, Transfusion Evidence Library had 3,456 followers [a slight rise from the previous year]. Tweets are posted about monthly email alerts and their contents, relevant awareness days, news items that contain content relevant to the Transfusion Evidence Library, as well as retweeting tweets from the SRI and SCE Twitter/X streams as relevant. We have also publicised the Transfusion Evidence Round-Ups through the TEL Twitter/X account, and through the TEL Facebook page. We are continuing to monitor the situation with Twitter/X and have explored other options for social media. We have set up Mastodon accounts for both libraries and are actively posting on LinkedIn. We are monitoring Bluesky, Threads and Mastodon as potential places to migrate our Twitter presence, but all of the potential options have limitations.
	A link to the Transfusion Evidence Library website link can be found on 515 sites, including the following:
	British Blood Transfusion Society:
	NHSBT Library, Evidence Search section.
	Canadian Society for Transfusion Medicine:
	<ul> <li>Institute of Scientific Information, Charles University, First Faculty of Medicine and General University Hospital in Prague</li> <li>Wikipedia article [External Links]:</li> </ul>
	Wikipedia article [External Links]:     NHS Leeds Libraries:
	<ul> <li>NHS Velindre University:</li> </ul>
	<ul> <li>Pavol Jozef Safarik University, Kosice, Slovak Republic</li> </ul>
	<ul> <li>National Medical Library, Prague</li> </ul>
	<ul> <li>LinkedIn:</li> </ul>
	<ul> <li>mentioned on the ISBT website.</li> </ul>
	Other dissemination:
	• A report with the monthly content uploaded in TEL is emailed to the editor of <i>Transfusion Medicine Reviews</i> .

Section	Our Evidence
	<ul> <li>A report is emailed every six months with the content uploaded in TEL to the Royal College of Pathologists.</li> <li>The link to the top records featured is included in the NHSBT R&amp;D monthly newsletter.</li> <li>The NHSBT librarian posts in Viva Engage about both alerts (SCE and TEL) every month.</li> </ul>
	Transfusion Evidence Library has been cited in the following 17 publications since October 2023:
	1. A review and analysis of outcomes in randomized clinical trials of plasma transfusion in patients with bleeding or for the prevention of bleeding: The BEST collaborative study (2024).
	Apelseth TO, Raza S, Callum J, Ipe T, Blackwood B, Akhtar A, et al. <i>Transfusion</i> . 64(6):1116-31.
	<ol> <li>Safety and efficacy of tranexamic acid in major non-cardiac vascular surgery: a systematic review and meta-analysis (2024)</li> <li>Atha K, Corrigan, L, Bera K, Shah A. Journal of the Vascular Societies of Great Britain and Ireland. 2024;3</li> <li>(4):194-202.</li> </ol>
	3. <b>Cold versus room temperature storage of platelets for haemorrhage control (2023)</b> . Borg Cuschieri, C. Thesis: University of Malta; 2023.
	4. Universal irradiation of platelets: Does irradiation affect the quality, effectiveness, and safety of platelets for transfusion? (2024) Cain L, Geneen LJ, Wiltshire M, Kimber C, Proffitt S, Sandercock J, et al. <i>Transfusion Medicine Reviews</i> . 2024: 150840.
	5. Balancing Donor Health and Plasma Collection: A Systematic Review of the Impact of Plasmapheresis Frequency (2024) D'Aes T, van den Hurk K, Schroyens N, Mikkelsen S, Severijns P, De Buck E, et al. <i>Transfusion Medicine Reviews</i> . 2024:150851.
	6. <b>Does peri-operative red blood cell transfusion increase the risk of cancer recurrence in patients undergoing curative surgery? Umbrella review of observational research and summary of randomised controlled trial evidence</b> (2024) Etheridge JS, P.; Walsh, T.; Shah, A.; Stanworth, S.; Harrison, E. <i>Anaesthesia</i> . 2024;79(S1):7-88.
	7. Pharmacological interventions for the prevention of bleeding in people undergoing elective hip or knee surgery: a systematic review and network meta-analysis (2024)
	Gibbs VN, Champaneria R, Sandercock J, Welton NJ, Geneen LJ, Brunskill SJ, et al. The Cochrane Database of Systematic Reviews. 2024;1:CD013295.
	8. A feasibility study examining the potential of introducing a whole blood component for the management of traumatic major haemorrhage (2023) McCullagh JA. Thesis: Manchester Metropolitan University; 2023.
	9. Defining ultra-massive transfusion through a systematic review (2024)

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	Meyer CH, Bailey NM, Leslie SL, Thrasher K, Grady Z, Sanders M, et al. <i>The American Journal of Surgery</i> 2024. p. 192-8.
	10. Plasma transfusion to prevent intraventricular haemorrhage in very preterm infants (2023)
	Neary E, Murphy CA, Ní Áinle F, El-Khuffash A, Cotter M, Kirkham C, et al. Cochrane Database of Systematic Reviews (Protocol). 2023(5).
	11. Quality evaluation and content analysis of guidelines for time limit management in transfusion nursing (2024)
	NI L-fL, Lin; SHEN, Chun-hua; QIAO, Yao; ZHOU, Liang; ZHU, Qiang; GONG, Wei-juan. <i>Journal of Nursing</i> . 2024;31(7):51-6.
	12. Restrictive versus liberal red blood cell transfusion strategies for people with haematological malignancies treated with intensive chemotherapy or radiotherapy, or both, with or without haematopoietic stem cell support (2024)
	Radford M, Estcourt LJ, Sirotich E, Pitre T, Britto J, Watson M, et al. Cochrane Database of Systematic Reviews. 2024(5):CD011305.
	13. <b>Does early transfusion of cold-stored whole blood reduce the need for component therapy in civilian trauma patients? A systematic review</b> (2024) Risha M, Alotaibi A, Smith S, Priestap F, Iansavitchene A, Laverty C, et al. <i>The Journal of Trauma and Acute Care Surgery</i> . 2024;97(5):p 822-829.
	14. <b>Assessing the one-month mortality impact of civilian-setting prehospital transfusion: A systematic review and meta-analysis</b> (2024) Schoenfeld DW, Rosen CL, Harris T, Thomas SH. <i>Academic Emergency Medicine</i> . 2024;31(6):590-8.
	15.Preoperative bleeding risk assessment in cardiac surgery patients (2024)Zyuzin VS. Surgical Practice. 2024;2:80-96.
	16. <b>Desmopressin to reduce periprocedural bleeding and transfusion: a systematic review and meta-analysis</b> (2024) Wang C, Lebedeva V, Yang J, Anih J, Park LJ, Paczkowski F, et al. <i>Perioperative Medicine</i> . 2024;13(1):5.
	17. Modern strategy for the use of allogeneic blood in cardiac surgery (2024)
	Zyuzin V.S.; Shneider, Y.A Russian Journal of Thoracic and Cardiovascular Surgery. 2024;66(3):282-90.
	Stem Cell Evidence <u>www.stemcellevidence.com</u> As of September 2023, the library contains 14,384 records (a rise of ~1400), including 579 RCTs, 708 systematic reviews, and 310 guidelines. Since November 2022, Stem Cell Evidence has the facility to highlight Featured Articles, using the functionality developed to display COVID-19 records.
	Stem Cell Evidence has been cited in the following 1 publication since October 2023:
	Peck RC, Knapp-Wilson A, Burley K, Doree C, Griffin J, Mumford AD, et al. Scoping review of factors associated with stem cell mobilisation and collection in allogeneic stem cell donors. <i>Transplantation and Cellular Therapy</i> . 2024;30(9):844-863. PubMed ID: 38851322

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	Stem Cell Evidence usage (taken from Google Analytics data). In the past year (from October 2023 to September 2024), Stem Cell Evidence has had 12,000 page-views from 3,012 individual users, from more than 80 countries.
	· Stem Cell Evidence users by country were: 25% from USA, 19% from Singapore, 12% from UK, 10% from Australia, 2.5% from India, 2.4% from Spain, 2.2% from China, 2.2% from the Netherlands, 2% from Brazil.
	• Most users (79%) came to Stem Cell Evidence directly, either by typing the URL or using a bookmark, 12% of users arrived by searching the internet, and 4% of users arrived by social media.
	Stem Cell Evidence Alert. We have 1,331 subscribers to the Stem Cell Evidence Alert.
	<ul> <li>Stem Cell Evidence on Twitter/X (@evidencestemc). On 18th October 2024 Stem Cell Evidence had 579 followers [a 6% rise from the previous year]. Tweets are posted about monthly email alerts and their contents, relevant awareness days, news items that contain content relevant to Stem Cell Evidence as well as retweeting tweets from the SRI and TEL Twitter/X streams as relevant. We continue to monitor the situation with Twitter/X and have set up a Mastodon account for the libraries.</li> <li>A link to Stem Cell Evidence can be found on 60 websites, an increase from 33 in the previous year, including: <ul> <li>Hospital.blood.co.uk</li> <li>Eurogct.org</li> <li>Rcpath.org</li> <li>Canterbury Christ Church University</li> </ul> </li> </ul>
	We have convened a Stem Cell Evidence Working Group of interested clinicians and scientists to try to increase the reach and dissemination of Stem Cell Evidence. We have explored potential improvements to the Library, ways of disseminating the Library and ways of finding more support and partnership opportunities within the Stem Cell community. As a result of the group's recommendations, we have taken the libraries to the EBMT conference April 2024 and provided publicity materials to the BGSCT meeting in June 2024. We also implemented an "Older Adults" patient type filter on the Library. We are still struggling to break into Stem Cell networks to any great degree; however, we are separately making contact with the ISBT Cellular Therapies Working Party, through our networks forged via the Transfusion Evidence Round-Up.
Awards and	People
Recognition	Mike Desborough, our new Assistant Clinical Director, was made an Associate Professor of Haematology, University of Oxford in May 2024
	<ul> <li>Lise Estcourt, SRI Clinical Director, became NHSBTs new Medical Director of Transfusion in June 2024</li> <li>Mike Desborough was awarded researcher of the year 2024, from National Institute for Health and Care Research (NIHR) – British Society for Haematology (BSH)</li> </ul>
Use of Facilities &	Training Received:
Resources	SRI team members have attended the following training activities since 1 <sup>st</sup> November 2023:
	Susan Brunskill attended,

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	Cochrane 'New guidance on using the Risk of Bias In Non-randomised Studies - of Interventions (ROBINS-I) tool', October 2023
	Open House for Leaders: April 2024, 4-week course on 'Necessary Conversations'.
	NHSBT Clinical Fellows Day, 23 <sup>rd</sup> April 2024
	Open House for Leaders: June 2024, 4-week course on Leading Change
	ISBT Annual Conference, 24-26 June 2024 in Barcelona
	Cochrane "Writing a Cochrane abstract in the focused review format", 4 September 2024
	BBTS Annual Conference, 16 – 19 September 2024 in Glasgow
	Cochrane & Global Evidence Summit's update on AI in Guidelines & Evidence Synthesis, 26 September 2024
	Open House for Leaders: October 2024, 4-week course on Resolving Challenging Relationships.
	Carolyn Doree
	Webinar on Modernized ClinicalTrials.gov – April 2024
	NHSBT Q-Pulse SOP Document Control Training – April 2024
	Lunch and Learn, NHSBT Image Library - August 2024
	Rachel Johnson session on giving feedback - September 2024
	Webinar on "Al in Guidelines & Evidence Synthesis" - September 2024
	Louise Geneen attended
	<ul> <li>webinar "Updated guidance on how to interpret and assess imprecision with GRADE methods", 11 Jan 2024</li> </ul>
	<ul> <li>webinar "Evidence synthesis and certainty of evidence ratings in rapid reviews, 25 Jan 2024</li> </ul>
	webinar "Identifying who benefits most from treatments: estimating interactions and subgroup effects in aggregate data meta-analysis", 29 Jan 2024
	<ul> <li>webinar "Conducting A Systematic Review with Laser AI", 30 Jan 2024</li> </ul>
	<ul> <li>webinar "Introducing Cochrane's Focused Review Format template: an essential tool for authors", 15 Feb 2024</li> </ul>
	<ul> <li>half day in-person course "R: a first look, University of Oxford, 6 February 2024</li> </ul>
	<ul> <li>webinar "Writing a Cochrane abstract in the focused review format", 4 Sept 2024</li> </ul>
	webinar "AI in Guidelines & Evidence Synthesis", 26 Sept 2024
	Cochrane/Global Evidence Summit, Prague, Sept 2024
	Catherine Kimber attended,
	R course - February 2024
	Plasma for medicine seminar - March 2024
	NHSBT change control training - April 2024
	8th International Congress of the ISBT, Barcelona, Spain - June 2024

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	<ul> <li>Lunch and Learn, NHSBT Image Library - August 2024</li> <li>Rachel Johnson session on giving feedback - September 2024</li> <li>NHSBT conference, Bristol UK - September 2024</li> <li>Statistics and research seminar - October 2024</li> <li>Alicia Plaza-Cajide attended,</li> <li>How to fill a good Creative Services brief and why is it important, (September 2024, on-line), NHSBT.</li> <li>Partnership campaign with Disney: Deadpool &amp; Wolverine (partnership insights and marketing strategies), (July 2024, on-line), NHSBT.</li> <li>Compelling outreach with social media cards (March 2024, in person), IT Learning Centre, University of Oxford.</li> <li>Social Media: Navigating your choices post Twitter (Feb 2024, on-line), IT Learning Centre, University of Oxford.</li> <li>Rita Solanki attended:</li> <li>TxEd Talk - The role of H&amp;I in Patient Care with Dr Katy Latham, 21<sup>st</sup> November 2023</li> </ul>
	<ul> <li>Statistics and Clinical Research Seminar Series – Development of CUSUM Monitoring for Organ Retrieval Damage with Rachel Hogg, 30<sup>th</sup> November 2024</li> <li>Statistics and Clinical Research Seminar Series - What is a systematic review? Susan Brunskill, 26<sup>th</sup> March 2024</li> <li>Organ Donation Week webinar - 30 years of the NHS Organ Donor Register – Christine Cox, 24<sup>th</sup> September 2024</li> <li>Statistics and Clinical Research Seminar Series - Challenges extracting data from the literature with Josie Sandercock, 17<sup>th</sup> October 2024</li> </ul>
Other Outputs & Knowledge	<ul> <li>The information science workload has remained constant this past year. In addition to the core search activities for our reviews and the libraries, during 2023/24 Carolyn has also given full information science support to the following external projects (with some costs recovered for the SRI): <ol> <li>BTRU and Economic Studies SR update search (Simon Stanworth, January 2024)</li> <li>BTRU Clinical Indicators for Transfusion SR update search (Simon Stanworth, May 2024)</li> <li>Jeff Carson's Transfusion Thresholds SR (Cochrane) update search (Simon Stanworth, October 2024).</li> <li>Fresh Frozen Plasma overview SR update search (Simon Stanworth, October 2024)</li> </ol> </li> </ul>