

## **PAPER C: Report of SRI activities and Impact for the year October 2022 through to October 2023.**

### **EXECUTIVE SUMMARY.**

- ❑ Our reviews have contributed to 20 international and national guidelines and the Transfusion Evidence Library has been referenced in at least 26 published papers.
- ❑ There have been three new research grant applications made and one new clinical trial started using evidence from one of our systematic reviews [see details on page 16 and 17].
- ❑ Eleven full systematic reviews were completed and published [see citations detailed on page 2].
- ❑ A further four full systematic review are going through peer review [see details on page 3].
- ❑ We have continued our collaboration with ISBT, including a new Journal Club webinar to discuss *The Transfusion Evidence Round-Up* [see details on page 6].
- ❑ We have been working with others in NHSBT to find a way to build a website for the SRI.
- ❑ We have increased the variety of our engagement activities this year [see details on pages 6 to 9].
- ❑ We have continued to grow our Twitter/X accounts [@TransfusionLib, @sritransfusion and @stemcell] 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 a similar number of reviews [11 compared to 12] and have two reviews going through peer review [five last year].
- We have found less evidence of the citing of our reviews in new guidelines [20 guidelines compared to 29 last year] with less of our reviews cited [18 reviews compared to 30 last year].
- The Transfusion Evidence Library has been referenced in more journal publications [26 compared to 18].
- The Transfusion Evidence Library is provided as a resource for users on more independent sites [14 compared to 10].
- Overall, there have been a greater variety of, and more engagement in, activities this year than during 2021/2022.
- The number of followers for each Twitter/X account has increased - by 9% for Transfusion Evidence Library, 10% for the SRI and 25% for Stem Cell Evidence: all are similar increases to the increases seen between November 2021 and October 2022.

Section	Our Evidence
<p><b>Publications</b> since November 2022 listed alphabetically by first author.</p> <p>[Authors in bold are members of the SRI]</p> <p><b>Explanations of Complexity descriptors</b></p> <p><b>A simple review</b> includes only RCTs and includes &lt;10 RCTs.</p> <p><b>A medium review</b> includes only RCTs and includes between 10 and 100 RCTs. Or a review of mixed study types with no risk of bias and statistical analysis.</p> <p><b>A complex review</b> can be any of the following includes non-randomised studies; uses methodology such as IPD individual patients data] or NMA [network meta-analysis]; includes more than 100 eligible studies or is a</p>	<p><b>3 Complex reviews; 5 medium reviews; 3 simple reviews; 2 search support</b></p> <p><b>Beverly A, Ong G, Kimber C, Sandercock J, Dorée C, Welton NJ, Wicks P, Estcourt LJ.</b> Drugs to reduce bleeding and transfusion in major open vascular or endovascular surgery: a systematic review and network meta-analysis. <i>Cochrane Database of Systematic Reviews</i>. 2023 Feb 17;2(2):CD013649. doi: 10.1002/14651858.CD013649.pub2. [Number of included studies = 22].</p> <p>Dhiman P, Ma J, Gibbs VN, Rampotas A, Kamal H, Arshad SS, Kirtley S, <b>Doree C</b>, Murphy MF, Collins GS, Palmer AJ. Systematic review highlights high risk of bias of clinical prediction models for blood transfusion in patients undergoing elective surgery. <i>Journal of Clinical Epidemiology</i>. 2023 May 6:S0895-4356(23)00108-7. doi: 10.1016/j.jclinepi.2023.05. 002. SEARCH ONLY</p> <p><b>Geneen LJ, Dorée C, Estcourt LJ.</b> Interventions for improving adherence to iron chelation therapy in people with sickle cell disease or thalassaemia. <i>Cochrane Database of Systematic Reviews</i>. 2023 Mar 6;3(3):CD012349. doi: 10.1002/14651858.CD012349.pub3. [Number of included studies = 4].</p> <p><b>Gibbs VN, Geneen LJ, Champaneria R, Raval P, Dorée C, Brunskill SJ, Novak A, Palmer AJ, Estcourt LJ.</b> Pharmacological interventions for the prevention of bleeding in people undergoing definitive fixation or joint replacement for hip, pelvic and long bone fractures. <i>Cochrane Database of Systematic Reviews</i>. 2023 Jun 5;6(6):CD013499. doi: 10.1002/14651858.CD013499.pub2. [Number of included studies = 13].</p> <p><b>Kimber C, Lamikanra AA, Geneen LJ, Sandercock J, Dorée C, Valk SJ, Estcourt LJ.</b> A systematic review of the safety and efficacy of convalescent plasma or immunoglobulin treatment for people with severe respiratory viral infections due to coronaviruses or influenza. <i>Transfusion Medicine</i> 2023 Feb;33(1):26-38. doi: 10.1111/tme.12942. [Complex due to the inclusion of RCT and non RCT data. Number of included studies = 32].</p> <p><b>Kimber C, Valk SJ, Chai KL, Piechotta V, Iannizzi C, Monsef I, Wood EM, Lamikanra AA, Roberts DJ, McQuilten Z, So-Osman C, Estcourt LJ, Skoetz N.</b> Hyperimmune immunoglobulin for people with COVID-19. <i>Cochrane Database of Systematic Reviews</i> 2023 Jan 26;1(1):CD015167. doi: 10.1002/14651858.CD015167.pub2. Number of included studies = 5].</p> <p>Iannizzi C, Chai KL, Piechotta V, Valk SJ, <b>Kimber C</b>, Monsef I, Wood EM, Lamikanra AA, Roberts DJ, McQuilten Z, So-Osman C, Jindal A, Cryns N, <b>Estcourt LJ</b>, Kreuzberger N, Skoetz N. Convalescent plasma for people with COVID-19: a living systematic review. <i>Cochrane Database of Systematic Reviews</i>. 2023 May 10;5(5):CD013600. doi: 10.1002/14651858.CD013600.pub6. [Number of included studies = 33].</p> <p>Lin, V.S., Sun, E., Yau, S. Abeyakoon C, Seamer G, Bhopal S, Tucker H, <b>Doree C, Brunskill S</b>, McQuilten Z, Stanworth S, Wood E, Green L. Definitions of massive transfusion in adults with critical bleeding: a systematic review. <i>Critical Care</i>. 2023 Jul 5;27(1):265. doi: 10.1186/s13054-023-04537-z. [Number of included studies = 30].</p> <p>Lloyd TD, <b>Geneen LJ</b>, Bernhardt K, McClune W, Fernquest SJ, Brown T, <b>Dorée C, Brunskill SJ, Murphy MF</b>, Palmer AJ. Cell salvage for minimising perioperative allogeneic blood transfusion in adults undergoing elective surgery. <i>Cochrane Database Syst Rev</i>. 2023 Sep 8;9(9):CD001888. doi: 10.1002/14651858.CD001888.pub5. [Complex due to this being a significant update. Number of included studies = 106].</p>

Section	Our Evidence
<p>significant update of an already published systematic review, for example requires a total rewrite of methods and therefore extraction and analysis of already included data.</p> <p>Black = only involvement was the search</p>	<p>McCullagh J, Cardigan R, <b>Brunskill SJ</b>, Bullock T, <b>Doree C</b>, <b>Estcourt L</b>, Huish S, <b>Sandercock J</b>, Green L. Assessing the risks of haemolysis as an adverse reaction following the transfusion of ABO incompatible plasma-containing components - A scoping review. <i>Blood Reviews</i>. 2022 Nov; 56:100989. doi: 10.1016/j.blre.2022.100989. [Complex due to the mix of included study types. Number of included studies = 49].</p> <p>Mo A, Poynton M, Wood E, Shortt J, <b>Brunskill SJ</b>, <b>Doree C</b>, <b>Sandercock J</b>, Saadah N, Luk E, Stanworth SJ, McQuilten Z. Do anemia treatments improve quality of life and physical function in patients with myelodysplastic syndromes (MDS)? A systematic review. <i>Blood Reviews</i>.2023 Sep;61:101114. doi: 10.1016/j.blre.2023.101114. [Number of included studies = 26].</p> <p>Roy NB, Carpenter A, Dale-Harris I, <b>Dorée C</b>, <b>Estcourt LJ</b>. Interventions for chronic kidney disease in people with sickle cell disease. <i>Cochrane Database of Systematic Reviews</i>. 2023 Aug 4;8(8):CD012380. doi: 10.1002/14651858.CD012380.pub3. [Number of included studies = 3]</p> <p>Schofield J, Hosseinzadeh S, Burton K, Pavord S, Dutt T, <b>Doree C</b>, Lim WY, Desborough MJR. Drug-induced thrombotic thrombocytopenic purpura: A systematic review and review of European and North American pharmacovigilance data. <i>British Journal of Haematology</i>. 2023 May;201(4):766-773. doi: 10.1111/bjh.18577. SEARCH ONLY</p> <p><b>Going through peer review:</b></p> <ul style="list-style-type: none"> <li>• <b>Pharmacological Interventions for preventing bleeding in people requiring elective hip or knee surgery: a systematic review and network meta-analysis. (Cochrane)</b></li> <li>• <b>Strategies for use of blood products for major bleeding in trauma (Cochrane)</b></li> <li>• <b>Restrictive versus liberal red blood cell transfusion strategies for people with haematological malignancies treated with intensive chemotherapy.</b></li> <li>• Rh D review</li> </ul>
<p><b>Collaborations</b> with people outside the SRI. These have been grouped by type of project.</p> <p>New collaborators this year are identified by an * at the beginning of their details.</p>	<p>We have collaborated with many clinicians and researchers over the last 12 months. Their names and affiliations are provided here:</p> <p><b>Stem Cell Evidence:</b></p> <p>Dr James Griffin – NHSBT, UK.  Mr John Muth - Evidentia Publishing, UK.  Mr Mark Schregardus – Evidentia Publishing, The Netherlands.  Mr Michael Studman - Evidentia Publishing, UK.</p> <p><b>NIHR Cochrane Programme Grant</b></p> <p>*Cochrane Editorial Unit  Cochrane Injuries Group [co-applicant].  Cochrane Vascular Group.</p>

Section	Our Evidence
	<p>Dr Nikki Curry - Oxford University Hospitals NHS Foundation Trust, UK [co-applicant].  Toby Lasserson – Cochrane Editorial Unit.  Clareece Nevill – NIHR Complex Reviews Support Unit  *Professor Alex Sutton – University of Leicester  Professor Nicky Welton – University of Bristol.</p> <p><b><i>Transfusion Evidence Round-Ups</i></b>  Dr Gwen Clarke – University of Alberta, Calgary, Canada.  Beatriz Galindo – ISBT Central Office, The Netherlands.  Dr Allison Mo - Monash University, Melbourne, Australia.  Marion Molliet – ISBT Central Office, The Netherlands.  Jenny White – Executive Director, ISBT, The Netherlands.  Professor Erica Wood - Transfusion Research Unit, Melbourne, Australia.  Eszter Herczenik – ISBT Central Office, The Netherlands.</p> <p><b><i>Systematic review collaborators:</i></b>  *Dr Alisha Allana - University Hospital Southampton NHS Foundation Trust, UK.  Keeley Bernhardt - Medical student, University of Oxford, Oxford, 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.  *Katerina Dargas - Medical student, University of Oxford, Oxford, UK.  Dr Michael Desborough - Oxford University Hospitals NHS Foundation Trust, UK.  Paula Dhiman – University of Oxford, Oxford, UK.  *Matilda Dichmont - Medical student, University of Oxford, Oxford, UK.  Dr Vishakha Erasu - Oxford University Hospitals NHS Foundation Trust, UK.  A/Prof Jez Fabes – Peninsula Medical School &amp; Derriford Hospital, Plymouth, UK.  Dr Scott Fernquest - University of Oxford, Oxford, UK.  Professor Laura Green – NHSBT &amp; Barts Health NHS Trust, UK.  Dr Aqib Hafeez - Oxford University Hospitals NHS Foundation Trust, UK.</p>

Section	Our Evidence
	<p>*Dr Youngjoo Kang – Royal Berkshire Hospital, Reading, UK.  *Dr Alvin Katumba - Oxford University Hospitals NHS Foundation Trust, UK.  Dr Abi Lamikanra - NHSBT, &amp; University of Oxford, Oxford, UK.  Dr Victor Lin – The Royal Melbourne Hospital, Australia.  Dr Tom Lloyd - Oxford University Hospitals NHS Foundation Trust, UK.  Dr Eleni Louka - Great Ormand Street Hospital, London, UK.  William McClune – Medical student, University of Oxford, Oxford, UK.  *Dr Thomas McGrath – Great Ormand Street Hospital, London, UK.  Professor Zoe McQuilten - Monash University, Melbourne, Australia.  *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  Dr Antony Palmer – University of Oxford and 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.  Mr Parag Raval – University Hospitals of Leicester, UK.  A/Professor Noemi Roy - Oxford University Hospitals NHS Foundation Trust, UK  Professor David J Roberts – NHSBT and University of Oxford, UK  Dr Akshay Shah - Oxford University Hospitals NHS Foundation Trust, UK  Dr Nicole Skoetz – Cochrane Cancer, Cologne, Germany.  Dr Cynthia So-Osman – Erasmus Medical Center, The Netherlands.  *Dr Sam Tingle -  Dr Harriet Tucker – St George’s University Hospital, London, UK  Dr Kirstin Wilkinson – University Hospital Southampton NHS Foundation Trust, UK.  Dr Mike Wiltshire - NHSBT, UK.  Professor Erica Wood - Transfusion Research Unit, Melbourne, Australia.</p>
<b>Further Funding</b>	Three funding applications were made between October 2022 and October 2023:

Section	Our Evidence
	<ol style="list-style-type: none"> <li>1. Susan Brunskill and Professor Simon Knight [transplant surgeon, Oxford University NHS Foundation Trust] applied to NHSBT small grants for money to both fund the sole member of salaried staff working on the Transplant Library and cover costs to make the Transplant Library free to access in the UK [February 2023]. The application was for £75,594.60. This application was unsuccessful as it did not rank high enough against other applications.</li> <li>2. Susan Brunskill applied to NHSBT NIHR Research Capability Funds in May 2023 for the salary costs for the sole member of salaried staff working on the Transplant Library for the period July 2023 through to March 2024. The application was for £47,000. The application was successful.</li> <li>3. Lise Estcourt applied for a further extension to the SUPPORT E programme grant in spring 2023. The application was successful.</li> </ol>
<b>Next Destination &amp; Skills</b>	No one has left the SRI within the last 12 months.
<b>Engagement Activities</b>	<p><b><i>Transfusion Evidence Round-Up</i></b></p> <p>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:</p> <ul style="list-style-type: none"> <li>• The Best of the Transfusion Evidence Library (5<sup>th</sup> December 2022)</li> <li>• World Haemophilia Day (6<sup>th</sup> March 2023)</li> <li>• World Blood Donor Day (14<sup>th</sup> June 2023)</li> <li>• World Heart Day (29<sup>th</sup> September 2023).</li> </ul> <p>New to this year is that all Round-Ups are 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 ISBT and are open to anyone within the ISBT community. As the World Blood Donor Day Round-Up coincided with the ISBT international congress, a live webinar was held during the congress. Lise Estcourt represented the SRI at this event and helped to facilitate a workshop within the webinar, which saw attendees assess the merits of several papers and choose their top paper from the set they were given. We have had very positive feedback from all webinars and plan to continue running them through 2024.</p> <p>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 is similar to that of the monthly evidence alerts.</p> <p><b><i>Social media activity:</i></b></p> <p>We run 3 Twitter/X accounts, one for each of our electronic libraries and one for the SRI overall. Our activity on these accounts is one of the aspects of our online presence strategy. We also run a Facebook account for each of the libraries and have also created Mastodon accounts for each library, although our primary focus remains Twitter/X.</p>

Section	Our Evidence
	<p>Our Twitter/X accounts have a combined total of 6427 followers:</p> <ul style="list-style-type: none"> <li>• 548 [up from 503 in October 2022] for Stem Cell Evidence</li> <li>• 3303 [up from 3085 in October 2022] for Transfusion Evidence Library</li> <li>• 576 [up from 458 in October 2022] for SRI.</li> </ul> <p>To increase engagement, this year we have started doing the following:</p> <ul style="list-style-type: none"> <li>• Creating visual infographics for each newly published systematic review and sharing through our Twitter/X accounts and internally through ‘Viva Engage’</li> <li>• Sharing the PICO summary for each record featured in our monthly Evidence Alerts and quarterly Round-Ups on our library Twitter/X accounts.</li> </ul> <p><b>Talks, Podcasts and Presentations:</b></p> <p>Members of the SRI have given the following talks over the last year:</p> <ul style="list-style-type: none"> <li>• <b>Lise Estcourt</b> on Future of Transfusion to RCPATH Advances in Transfusion (International), <i>virtual</i>, November 2022</li> <li>• <b>Lise Estcourt</b> on Red cell shortages, key issues &amp; actions to RCPATH Advances in Transfusion (International), <i>virtual</i>, November 2022</li> <li>• <b>Lise Estcourt</b> on Pathogen-reduced platelets for the prevention of bleeding, to IPFA/PEI workshop (International), Italy, May 2023</li> <li>• <b>Susan Brunskill</b> on ‘Systematic Review Initiative: core ongoing work and our plans for the year ahead’ to NHSBT clinical research teams, <i>virtual</i>, March 2023.</li> <li>• <b>Lise Estcourt</b> on SUPPORT E recommendations to a Support E conference, Belgium, June 2023</li> <li>• <b>Lise Estcourt</b> on ISBT/Transfusion Evidence Library round-up workshop, ISBT Congress June 2023, (International), Sweden</li> <li>• <b>Josie Sandercock</b> workshop with the Complex Reviews Support Unit (Leicester) on “MetaInsight: An interactive user-friendly “point and click” web application to conduct network meta-analysis” to Cochrane [Colloquium], London, September 2023</li> <li>• <b>Louise Geneen</b> on ‘How could the output from a NIHR Programme Grant tackle health inequalities: Findings from four systematic reviews undertaken by the Systematic Review Initiative since 2018’ to NHSBT R&amp;D Conference, Birmingham, October 2023</li> </ul> <p>Presented posters at the following conferences:</p> <ul style="list-style-type: none"> <li>• <b>Lise Estcourt</b> on ‘Introducing ‘Transfusion Evidence Round-ups’: a collaboration between ISBT and the Systematic Review Initiative, born of a common goal to share knowledge to improve worldwide practice of transfusion medicine’ to ISBT Congress, Sweden, June 2023</li> <li>• <b>Catherine Kimber</b> and <b>Alicia Plaza Cajide</b> to SHOT on our evidence libraries, Manchester, July 2023</li> </ul>

Section	Our Evidence
	<ul style="list-style-type: none"> <li>• <b>Josie Sandercock, Louise Geneen, Catherine Kimber</b> on ‘Competing events and in-hospital follow up: issues to be aware of’ to Cochrane [Colloquium], London, September 2023</li> <li>• <b>Josie Sandercock and Louise Geneen</b> on ‘Analysis of a continuous outcome when the data includes a large proportion of zeros’ to Cochrane [Colloquium], London September 2023</li> <li>• <b>Susan Brunskill</b> on ‘Transfusion Evidence Round-ups’: an ISBT/SRI collaboration with a goal to share knowledge to improve transfusion practice worldwide’ to Cochrane [Colloquium], London, September 2023</li> <li>• <b>Catherine Kimber and Susan Brunskill</b> on ‘How the ‘Transfusion Evidence Round-Ups’, a Collaboration Between the Systematic Review Initiative and ISBT, can Help to Tackle Health Inequalities in Transfusion Medicine’ to NHSBT R&amp;D Conference, Birmingham, October 2023</li> <li>• <b>Louise Geneen</b> on “Cell Salvage for minimising perioperative allogeneic blood transfusion in adults undergoing elective surgery: Cochrane systematic review with meta-analysis” to NHSBT R&amp;D Conference, Birmingham, October 2023</li> </ul> <p>Recorded podcasts for Cochrane:</p> <ul style="list-style-type: none"> <li>• <b>Louise Geneen</b>, ‘Can collecting blood that is lost during surgery, and returning it to the patient, reduce the need to use donated blood for that patient?’, using data from the Cochrane cell salvage review, in September 2023.</li> </ul> <p>Our reviews have been the focus of a talk by someone outside of the SRI:</p> <ul style="list-style-type: none"> <li>• <b>Dr Victor Lin</b> ‘What is a massive transfusion? A scoping review to inform an international consensus definition’ to the European Hematology Association conference, June 2023.</li> </ul> <p><b><i>Teaching and support activities that the SRI staff provide to Clinical Fellows and other staff through the year.</i></b></p> <p>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:</p> <ul style="list-style-type: none"> <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> <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, Lise Estcourt.</li> <li>• Provided support on how to use RevManWeb to Dr Noemi Roy and colleagues: Susan Brunskill and Lise Estcourt; and to Dr Tom Lloyd: Louise Geneen.</li> <li>• Providing statistical advice on two research projects being undertaken by Professor Simon Stanworth: Josie Sandercock.</li> </ul>



Section	Our Evidence
	<p><b>SRI website.</b></p> <p>For the past ten years, our SRI website has been a sub-site of the JPAC transfusion guidelines website <a href="https://www.transfusionguidelines.org/systematic-review-initiative">https://www.transfusionguidelines.org/systematic-review-initiative</a> Over the last few years we have explored different options to create a website for ourselves [including self-building through a University of Oxford portal]. In December 2022, we were asked by NHSBT’s Chief Medical Officer to join with JPAC and SHOT [both groups funded as we are through the UK Blood Services] in a project to create new, independent websites for the three groups. During the past nine months, we have done the following:</p> <ul style="list-style-type: none"> <li>• Understood that is highly unlikely that any of the websites can be built in-house as they are perceived to be of minimal value to NHSBT core operations.</li> <li>• Understood that funding for the website development will not be available from within NHSBT’s Clinical Directorate.</li> <li>• Worked with an external company, TPX Impact, to understand the business and user needs and requirements to support the build and implementation of new websites to replace the existing sites. This research culminated in the creation of detailed Business Requirement Documents for each website.</li> <li>• Presented the work done thus far to our funders, UK Blood Services, in September 2023, and have been surprised to be told that there is an underspend in their budget and that we could use some of this underspend to create an SRI website by March 2024.</li> <li>• Begun working with NHSBT Commercial on the process to contract with an external company to build an SRI website.</li> </ul>
<b>Influence on Policy</b>	<p>We explored ‘influence on policy’ by searching for guidelines in which our reviews have been cited since the last meeting. From September 2022 to October 2023, 20 international guidelines have been published which have been informed by 18 SRI systematic reviews (24 citations):</p> <ol style="list-style-type: none"> <li>1. <b>Multidisciplinary paper on patient blood management in cardiothoracic surgery in the UK: perspectives on practice during COVID-19 (2023)</b> Al-Attar N, Gaer J, Giordano V, Harris E, Kirk A, Loubani M, et al. <i>Journal of Cardiothoracic Surgery</i>. 2023;18(1 C7 - 96). <i>1 Systematic Review:</i> Stanworth SJ, New HV, Apelseth TO, Brunskill S, Cardigan R, Doree C, Germain M, Goldman M, Massey E, Prati D, Shehata N, So-Osman C, Thachil J. Effects of the COVID-19 pandemic on supply and use of blood for transfusion. <i>The Lancet Haematology</i>. 2020;7(10):e756-e64. PubMed ID: 32628911.</li> <li>2. <b>2023 ESC Guidelines for the management of acute coronary syndromes (2023)</b> Byrne RA, Rossello X, Coughlan JJ, Barbato E, Berry C, Chieffo A, et al. <i>European heart journal Acute cardiovascular care</i>. 2023. <i>2 Systematic Reviews:</i> 1) Carson JL, Stanworth SJ, Dennis JA, Trivella M, Roubinian N, Fergusson DA, Triulzi D, Dorée C, Hébert PC. Transfusion thresholds for guiding red blood cell transfusion. <i>Cochrane Database of Systematic Reviews</i> 2021;12:CD002042. PubMed ID: 34932836. 2) 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</li> </ol>

Section	Our Evidence
	<p>haemophilia. <i>Cochrane Database of Systematic Reviews</i>. 2012;(3):CD005011. PubMed ID: 22419303.</p> <p>3. <b>Guidelines on the Use of Therapeutic Apheresis in Clinical Practice – Evidence-Based Approach from the Writing Committee of the American Society for Apheresis: The Ninth Special Issue (2023)</b>  Connelly-Smith L, Alquist CR, Aqui NA, Hofmann JC, Klingel R, Onwuemene OA, et al. <i>Journal of Clinical Apheresis</i>. 2023;38(2):77-278.  1 Systematic Review:  Brunskill SJ, Tusold A, Benjamin S, Stanworth SJ, Murphy MF. A systematic review of randomized controlled trials for plasma exchange in the treatment of thrombotic thrombocytopenic purpura. <i>Transfusion Medicine (Oxford, England)</i>. 2007;17(1):17-35. PubMed ID: 17266701.</p> <p>4. <b>ECCO Guidelines on Extraintestinal Manifestations in Inflammatory Bowel Disease (2023)</b>  Gordon H, Burisch J, Ellul P, Karmiris K, Katsanos K, Allocca M, et al. <i>Journal of Crohn's and Colitis</i>. 2023.  1 Systematic Review:  Oduyayo A, Desborough MJ, Trivella M, Stanley AJ, Dorée C, Collins GS, Hopewell S, Brunskill SJ, Kahan BC, Logan RF, Barkun AN, Murphy MF, Jairath V. 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.</p> <p>5. <b>NCCN Clinical Practice Guidelines in Oncology: Hematopoietic Growth Factors, Version 2.2023. Plymouth (PA): National Comprehensive Cancer Network; March 2023 (2023)</b>  Griffiths EA RV, Alwan L, Bachiashvili K, Baird J, Bakhshi S, Cool R, Dinner S, Geyer M, Glaspy J, Gojo I, Grove M, Jung I , Kidwai WZ, Kloth DD, Lyman GH, Mahajan A, Miller R, Nachar V, Patel S, Patel H, Perez LE, Poust A, Riaz F, Rosovsky R, Rugo HS, Vasu S, Wadleigh M, Westbrook K, Westervelt P, Pluchino LA, Dwyer M; National Comprehensive Cancer Network. 2023.  2 Systematic Reviews:  1) Carson JL, Stanworth SJ, Dennis JA, Trivella M, Roubinian N, Fergusson DA, Triulzi D, Dorée C, Hébert PC. Transfusion thresholds for guiding red blood cell transfusion. <i>Cochrane Database of Systematic Reviews</i>. 2021;12:CD002042. PubMed ID:34932836.  2) Estcourt LJ, Stanworth SJ, Hopewell S, Doree C, Trivella M, Massey E. Granulocyte transfusions for treating infections in people with neutropenia or neutrophil dysfunction. <i>Cochrane Database of Systematic Reviews</i>. 2016;(4):CD005339. PubMed ID: 27128488; PMCID: PMC4930145.</p> <p>6. <b>Management of severe peri-operative bleeding: Guidelines from the European Society of Anaesthesiology and Intensive Care: Second update 2022 (2023)</b>  Kietaiabl S, Ahmed A, Afshari A, Albaladejo P, Aldecoa C, Barauskas G, et al. <i>European Journal of Anaesthesiology</i>. 2023;40(4):226-304.  1 Systematic Review:</p>

Section	Our Evidence
	<p>Brunskill SJ, Millette SL, Shokoohi A, Pulford EC, Doree C, Murphy MF, Stanworth S. Red blood cell transfusion for people undergoing hip fracture surgery. <i>Cochrane Database of Systematic Reviews</i>. 2015;(4):CD009699. PubMed ID: 25897628.</p> <p>7. <b>Multidisciplinary consensus document on the management of massive haemorrhage. First update 2023 (document HEMOMAS-II) (2023)</b>  Llau JV, Aldecoa C, Guasch E, Marco P, Marcos-Neira P, Paniagua P, et al. <i>Revista Espanola de Anestesiologia y Reanimacion</i>. 2023;70(7):409-21.  <b>1 Systematic Review:</b>  McQuilten ZK, Crighton G, Brunskill S, Morison JK, Richter TH, Waters N, Murphy MF, Wood EM. Optimal Dose, Timing and Ratio of Blood Products in Massive Transfusion: Results from a Systematic Review. <i>Transfusion Medicine Reviews</i>. 2018;32(1):6-15. PubMed ID: 28803752.</p> <p>8. <b>Multidisciplinary consensus document on the management of massive haemorrhage. First update 2023 (document HEMOMAS-II) (2023)</b>  Llau JV, Aldecoa C, Guasch E, Marco P, Marcos-Neira P, Paniagua P, et al. <i>Medicina Intensiva</i>. 2023;47(8):454-67.  <b>1 Systematic Review:</b>  McQuilten ZK, Crighton G, Brunskill S, Morison JK, Richter TH, Waters N, Murphy MF, Wood EM. Optimal Dose, Timing and Ratio of Blood Products in Massive Transfusion: Results from a Systematic Review. <i>Transfusion Medicine Reviews</i>. 2018;32(1):6-15. PubMed ID: 28803752.</p> <p>9. <b>Diagnostic and treatment guidelines for thrombotic thrombocytopenic purpura (TTP) in Japan 2023 (2023)</b>  Matsumoto M, Miyakawa Y, Kokame K, Ueda Y, Wada H, Higasa S, et al. <i>International Journal of Hematology</i>. 2023.  <b>1 Systematic Review:</b>  Docherty AB, O'Donnell R, Brunskill S, Trivella M, Doree C, Holst L, Parker M, Gregersen M, Pinheiro de Almeida J, Walsh TS, Stanworth SJ. 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</i>. 2016;352: i1351. PubMed ID: 27026510.</p> <p>10. <b>Current advances in 2022: A critical review of selected topics by the Association for the Advancement of Blood and Biotherapies (AABB) Clinical Transfusion Medicine Committee (2023)</b>  Metcalf RA, Cohn CS, Bakhtary S, Gniadek T, Gupta G, Harm S, et al. <i>Transfusion</i>. 2023;63(8):1590-600.  <b>1 Systematic Review:</b>  McCullagh J, Cardigan R, Brunskill SJ, Bullock T, Doree C, Estcourt L, Huish S, Sandercock J, Green L Assessing the risks of haemolysis as an adverse reaction following the transfusion of ABO incompatible plasma-containing components - A scoping review. <i>Blood Reviews</i>. 2022:100989. PubMed ID: 35871104.</p> <p>11. <b>Fresh frozen plasma administration in the NICU: evidence-based guidelines. (2023)</b>  Motta MG, B. <i>Current Pediatric Review</i>. 2023;19(4):342-51.</p>

Section	Our Evidence
	<p><i>1 Systematic Review:</i> Desborough M, Sandu R, Brunskill SJ, Doree C, Trivella M, Montedori A, Abraha I, Stanworth S. Fresh frozen plasma for cardiovascular surgery. <i>Cochrane Database of Systematic Reviews</i>, 2015;(7) ,CD007614. PubMed ID: 26171897.</p> <p>12. <b>Trombocytentransfusies bij kinderen met kanker. [Guideline: Platelet transfusions in children with cancer]. Utrecht: Federatie Medisch Specialisten; June 2022.</b> (2022) [Paediatrics] NVvKDaf. 2022.</p> <p><i>2 Systematic Reviews:</i></p> <p>1) Crighton GL, Estcourt LJ, Wood EM, Trivella M, Doree C, Stanworth S. A therapeutic-only versus prophylactic platelet transfusion strategy for preventing bleeding in patients with haematological disorders after myelosuppressive chemotherapy or stem cell transplantation. <i>Cochrane Database of Systematic Reviews</i>. 2015;2015(9):CD010981. PubMed ID: 26422767; PMCID: PMC4610062.</p> <p>2) 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>Cochrane Database of Systematic Reviews</i>. 2015;2015(11):CD010983. PubMed ID: 26576687; PMCID: PMC4717525.</p> <p>13. <b>The European guideline on management of major bleeding and coagulopathy following trauma: sixth edition (2023)</b> Rossaint R, Afshari A, Bouillon B, Cerny V, Cimpoesu D, Curry N, et al. <i>Critical Care (London, England)</i>. 2023;27(1):80.</p> <p><i>2 Systematic Reviews:</i></p> <p>1) Carson JL, Stanworth SJ, Dennis JA, Trivella M, Roubinian N, Fergusson DA, Triulzi D, Dorée C, Hébert PC. Transfusion thresholds for guiding red blood cell transfusion. <i>Cochrane Database of Systematic Reviews</i>. 2021;12:CD002042. PubMed ID:34932836.</p> <p>2) 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>Cochrane Database of Systematic Reviews</i>. 2012;(3):CD005011. PubMed ID: 22419303.</p> <p>14. <b>Intravenous iron administration in Home Hospitalization Units: Good practice recommendations (2023)</b> Ruiz-Castellano M, Jericó C, García-Erce JA. <i>Medicina Clinica</i>. 2023.</p> <p><i>1 Systematic Review:</i> Neoh K, Page A, Chin-Yee N, Doree C, Bennett MI. Practice review: Evidence-based and effective management of anaemia in palliative care patients. <i>Palliative Medicine</i>. 2022:2692163221081967. PubMed ID: 35331051.</p> <p>15. <b>Management of Patients With Acute Lower Gastrointestinal Bleeding: An Updated ACG Guideline (2023)</b> Sengupta N, Feuerstein JD, Jairath V, Shergill AK, Strate LL, Wong RJ, et al. <i>The American Journal of Gastroenterology</i>. 2023;118(2):208-31.</p> <p><i>1 Systematic Review:</i></p>

Section	Our Evidence
	<p>Odutayo A, Desborough MJ, Trivella M, Stanley AJ, Dorée C, Collins GS, Hopewell S, Brunskill SJ, Kahan BC, Logan RF, Barkun AN, Murphy MF, Jairath V. 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.</p> <p>16. <b>Recommendations From the International Consensus Conference on Anemia Management in Surgical Patients (ICCAMS) (2023)</b> Shander A, Corwin HL, Meier J, Auerbach M, Bisbe E, Blitz J, et al. <i>Annals of Surgery</i>. 2023;277(4):581-90. <i>1 Systematic Review:</i> Shah AA, Donovan K, Seeley C, Dickson EA, Palmer AJR, Doree C, Brunskill S, Reid J, Acheson AG, Sugavanam A, Litton E, Stanworth SJ. Risk of Infection Associated With Administration of Intravenous Iron: A Systematic Review and Meta-analysis. <i>JAMA Network Open</i>. 2021;4(11):e2133935. PubMed ID: 34767026.</p> <p>17. <b>Primary prophylaxis of invasive fungal diseases in patients with haematological malignancies: 2022 update of the recommendations of the Infectious Diseases Working Party (AGIHO) of the German Society for Haematology and Medical Oncology (DGHO) (2023)</b> Stemler J, Mellinghoff SC, Khodamoradi Y, Sprute R, Classen AY, Zapke SE, et al. <i>The Journal of Antimicrobial Chemotherapy</i>. 2023;78(8):1813-26. <i>1 Systematic Review:</i> Estcourt LJ, Stanworth S, Doree C, Blanco P, Hopewell S, Trivella M, Massey E. Granulocyte transfusions for preventing infections in people with neutropenia or neutrophil dysfunction. <i>Cochrane Database of Systematic Reviews</i>. 2015(6):CD005341. PubMed ID: 26118415; PMCID: PMC4538863.</p> <p>18. <b>Australian Guidelines for the Clinical Care of People with COVID-19 (2023)</b>. Taskforce ANC-CE. 2023;v.71. <i>1 Systematic Review:</i> Piechotta V, Iannizzi C, Chai KL, Valk SJ, Kimber C, Dorando E, Monsef I, Wood EM, Lamikanra AA, Roberts DJ, McQuilten Z, So-Osman C, Estcourt LJ, Skoetz N. Convalescent plasma or hyperimmune immunoglobulin for people with COVID-19: a living systematic review. <i>Cochrane Database of Systematic Reviews</i>. 2021(5):CD013600. PubMed ID: 34013969.</p> <p>19. <b>КЛІНІЧНЕ ВЕДЕННЯ ПАЦІЄНТІВ З COVID-19 «ЖИВА» КЛІНІЧНА НАСТАНОВА. [Clinical management of patients with COVID-19. Living clinical guidelines]. Kiev, Ukraine: The State Expert Center of the Ministry of Health of Ukraine; 2023. [Issued January 2021; last updated May 2023]. (2023)</b> Ukraine TSECotMoHo. 2023. <i>1 Systematic Review:</i> Valk SJ, Piechotta V, Chai KL, Doree C, Monsef I, Wood EM, Lamikanra A, Kimber C, McQuilten Z, So-Osman C, Estcourt LJ, Skoetz N. Convalescent plasma or hyperimmune immunoglobulin for people with COVID-19: a rapid review. <i>Cochrane Database of Systematic Reviews</i>. 2020;(7):CD013600. PubMed ID: 32406927; PMCID: PMC7271896.</p>

Section	Our Evidence
	<p>20. <b>EASL Clinical Practice Guidelines on prevention and management of bleeding and thrombosis in patients with cirrhosis (2022)</b>  Villa E, Bianchini M, Blasi A, Denys A, Giannini EG, de Gottardi A, et al. <i>Journal of Hepatology</i>. 2022;76(5):1151-84.</p> <p><i>1 Systematic Review:</i>  Stanworth SJ, Brunskill SJ, Hyde CJ, McClelland DB, Murphy MF. Is fresh frozen plasma clinically effective? A systematic review of randomized controlled trials. <i>British Journal of Haematology</i>. 2004;126(1):139-52. PubMed ID: 15198745.</p>
<b>Research Tools &amp; Methods</b>	<p><b>NIHR Cochrane programme grant [2].</b> We have used a form of analysis, network meta-analysis (NMA), for the systematic reviews being undertaken through our NIHR Cochrane programme grant. This is the first time we have used this form of analysis. All working on the programme grant attended specific NMA training both in Oxford in June 2019 and Bristol in December 2019. We initially received support from both the Cochrane Complex Reviews Unit and Professor Nicky Welton from the University of Bristol for this form of analysis. In the last 12 months, external support for the NMA work has come from Professor Alex Sutton and Clareece Nevill at the University of Leicester and NIHR Complex Reviews Support Unit (CRSU), principally related to the software Metalnsight. Josie Sandercock found a simple method for getting Metalnsight to run locally, a necessity for very large networks, which is now part of the Metalnsight user guide. The elective orthopaedic surgery review was analysed using BUGSnet in R due to limitations in Metalnsight, but the latest (Sept 2023) version of Metalnsight is being used for the cardiac surgery review because BUGSnet cannot handle the size of the network in this review. Josie Sandercock found a simple method to identify nodes which break the network in an NMA, a previously time-consuming problem for very large networks, and CRSU are developing an R package to implement this.</p> <p>We 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.</p> <p>As a result, we have been exploring using other software, specifically that available through <b>SR Accelerator</b>, <a href="https://sr-accelerator.com/#/">https://sr-accelerator.com/#/</a>. Members of the team have used two of its programmes, Spidercite and Screenatron, and we hope to run a full review through the resources available on SR Accelerator within the next year.</p>
<b>Research Databases &amp; Models</b>	<p>See section below: <b>Software &amp; Technical Products</b></p>

Section	Our Evidence
<b>Intellectual Property &amp; Licensing</b>	<p>Conversations with NHSBT Procurement over the past two years have highlighted that aspects of our Electronic Libraries should be registered as intellectual property, most specifically the database structure. 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.</p> <p>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 in-house.</p>
<b>Medical Products, Interventions and Clinical Trials</b>	<p><b>Clinical Trials</b> that have developed from one of our systematic reviews in the past 12 months:</p> <ul style="list-style-type: none"> <li> <b>REVIEW:</b> <i>What is the effect of perioperative intravenous iron therapy in patients undergoing non-elective surgery?</i> [2018]  <b>CLINICAL TRIAL:</b> PREVENTT is being run from The University of Nottingham. Trial dates: October 2022 to October 2026. NIHR Co-applicants – Simon Stanworth, Akshay Shah. NIHR HTA panel (Successful) <a href="https://fundingawards.nihr.ac.uk/award/NIHR133467">https://fundingawards.nihr.ac.uk/award/NIHR133467</a>. </li> </ul> <p><b>Clinical Trials</b> that have developed/ been informed by one of our systematic reviews:</p> <ul style="list-style-type: none"> <li> <b>REVIEW:</b> The Difference in Potential Harms between Whole Blood and Component Blood Transfusion in major Bleeding: A Rapid Systematic Review and Meta-Analysis of RCT [2022].  <b>CLINICAL TRIAL:</b> SWIFT: study of Whole Blood in Frontline Trauma. A multi-centre randomised controlled trial of the clinical effectiveness and cost-effectiveness of pre-hospital whole blood administration versus standard care for traumatic haemorrhage- rapid review            Trial status: starting to open for recruitment. </li> <li> <b>REVIEW:</b> <i>Anti-fibrinolytics for the prevention of bleeding in patients with haematological malignancies</i> [2016]: The recent update of this review was referenced in the following trial:  <b>CLINICAL TRIAL:</b> TREATT - An ongoing, international trial “to evaluate anti-fibrinolytic therapy in patients with haematological malignancies.[ClinicalTrials.gov Identifier: NCT03136445. Analysis of the trial data has been completed and a publication is expected in spring 2024. Awarding Body: NHSBT. </li> <li> <b>REVIEW:</b> <i>Gaps in the evidence for prevention and treatment of maternal anaemia: a review of systematic reviews</i> [2012]:  <b>CLINICAL TRIAL:</b> PANDA a programme of research into the prevention of maternal anaemia to avoid preterm delivery and other adverse outcomes. </li> </ul>

Section	Our Evidence
	<p>Awarding Body: NIHR</p> <ul style="list-style-type: none"> <li> <p><b>REVIEW:</b> <i>Granulocytes for treating infection</i> [2016]:  <b>CLINICAL TRIAL: ProGrES:</b> An observational study of the incidence of infectious episodes eligible for granulocyte transfusion and outcomes. Awarding Body: NHSBT. Trial currently ongoing.</p> </li> <li> <p><b>REVIEW</b> <i>Granulocytes for preventing infection</i> [2016]:  <b>CLINICAL TRIAL: ProGrES:</b> An observational study of the incidence of infectious episodes eligible for granulocyte transfusion and outcomes. Awarding Body: NHSBT. Trial currently ongoing.</p> </li> <li> <p><b>REVIEW:</b> <i>Convalescent plasma or hyperimmune immunoglobulin for people with COVID-19: a living systematic review</i> [2020;2021; 2023] -  <b>2 CLINICAL TRIALS:</b> REMAP-CAP convalescent plasma trial re-start Awarding Body: NIHR in UK. Additional funding in Netherlands, New Zealand, Canada, France, Australia. <b>COVIC-19</b> funded by German government.</p> </li> <li> <p><b>REVIEW:</b> <i>Desmopressin for the treatment of platelet dysfunction and reversal of antiplatelet agents</i> [2017]:  <b>2 CLINICAL TRIALS: DRIVE</b> published in 2020 and DASH (desmopressin for reversal of antiplatelet drugs in stroke due to haemorrhage) trial from the National Institute for Health Research, Research for Patient Benefit funding stream Trial started on 1<sup>st</sup> April 2019. [ClinicalTrials.gov Identifier: NCT03696121], published in 2023: Desborough MJR, Al-Shahi Salman R, Stanworth SJ, Havard D, Woodhouse LJ, Craig J, Krishnan K, Brennan PM, Dineen RA, Coats TJ, Hepburn T, Bath PM, Sprigg N; DASH trial investigators. Desmopressin for patients with spontaneous intracerebral haemorrhage taking antiplatelet drugs (DASH): a UK-based, phase 2, randomised, placebo-controlled, multicentre feasibility trial. <i>Lancet Neurol.</i> 2023 Jul;22(7):557-567. doi: 10.1016/S1474-4422(23)00157-6. PMID: 37353276; PMCID: PMC10284719.</p> </li> <li> <p><b>REVIEW:</b> <i>Prophylactic platelet transfusions in critically ill patients</i> [2018].  <b>CLINICAL TRIAL: Threshold 4 Platelets (T4P) trial</b>, 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. <a href="https://fundingawards.nihr.ac.uk/award/NIHR131822">https://fundingawards.nihr.ac.uk/award/NIHR131822</a></p> </li> <li> <p><b>REVIEWS:</b> <i>Red blood cell transfusion in hip fracture surgery</i> [2016] and <i>Red cell transfusion threshold review</i> [2020].  <b>CLINICAL TRIAL: RESULT-HIP</b> (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. <a href="https://fundingawards.nihr.ac.uk/award/NIHR130875">https://fundingawards.nihr.ac.uk/award/NIHR130875</a></p> </li> </ul>



Section	Our Evidence
	<p><b>GRANT APPLICATIONs made in the last 12 months that have developed from one of our systematic reviews*:</b></p> <ul style="list-style-type: none"> <li>• <b>REVIEW:</b> <i>Convalescent plasma or hyperimmune immunoglobulin for people with COVID-19: a living systematic review [2021] – 2 applications</i> <b>CLINICAL TRIAL:</b> <i>COVIC-19 (UK) – awaiting outcome and COVIC-19 (France) – awaiting outcome</i></li> <li>• <b>REVIEW</b> <i>Efficacy and Safety of Intravenous Iron Therapy for Treating Anaemia in Critically ill Adults: A Rapid Systematic Review With Meta-Analysis [2022]. 1 application to NIHR EME. <b>CLINICAL TRIAL: INTACT-2.</b> Awaiting final decision. Co-applicants – Simon Stanworth, Akshay Shah</i></li> <li>• <b>REVIEW</b> <i>Drugs to reduce bleeding and transfusion in major open vascular or endovascular surgery: a systematic review and network meta-analysis [2023]. 1 application to NHSBT CTU for a clinical trial of TXA use in vascular patients. Principal applicant: A/Professor Jez Fabes. Awaiting final decision.</i></li> </ul>
<b>Artistic &amp; Creative Products</b>	Nothing to report.
<b>Software &amp; Technical Products</b>	<p><b>Transfusion Evidence Library</b> (<a href="http://www.transfusionevidencelibrary.com">www.transfusionevidencelibrary.com</a>). As of October 2023, the library contains 15,059 records. Of those 10,268 are RCTs, 4,557 are Systematic Reviews and 100 are Economic Studies. Annual maintenance bill= £ 25,000.</p> <p>The Transfusion Evidence Library has the facility to highlight Featured Articles, and this year this functionality was used to display 113 articles conducted by the SRI team to highlight the 20th anniversary of the SRI.</p> <p>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 2022), World Haemophilia Day (6<sup>th</sup> March 2023), World Blood Donor Day (14<sup>th</sup> June 2023), World Heart Day (29<sup>th</sup> September 2023).</p> <p>Transfusion Evidence Library usage (taken from Google Analytics data)</p> <ul style="list-style-type: none"> <li>• Between October 2022 and September 2023, the Transfusion Evidence Library (TEL) was visited from more than 130 countries; the TEL had 11,102 users, which is an increase in 10% in the number of users from the same period last year.</li> </ul>

Section	Our Evidence
	<ul style="list-style-type: none"> <li>Between October 2022 and September 2023, TEL users by country were: 37% from USA, 11% from UK, 6% from Australia, 5% from Canada, 4% from Germany, and 2% each from Netherlands, Italy, and India. Like the previous year, the USA was the country from where most visits originated.</li> <li>Most users (86%) came to TEL directly or by typing the URL. 5% of users arrived from social media (Twitter/X or Facebook), and 4% each arrived from searching the internet and via links sent through emails.</li> </ul> <p><b>Transfusion Evidence Alert</b> We have 8,637 subscribers to the Transfusion Evidence Alert.</p> <p><b>Transfusion Evidence Library on Twitter (now X) (@TransfusionLib).</b> On 26th September 2023, Transfusion Evidence Library had 3,294 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.</p> <p>A link to the Transfusion Evidence Library website link can be found on 656 sites, including the following:</p> <ul style="list-style-type: none"> <li>British Blood Transfusion Society:</li> <li>NHSBT Library, Evidence Search section.</li> <li>Canadian Society for Transfusion Medicine:</li> <li>Institute of Scientific Information, Charles University, First Faculty of Medicine and General University Hospital in Prague</li> <li>Wikipedia article [External Links]:</li> <li>NHS Leeds Libraries:</li> <li>NHS Velindre University:</li> <li>Pavol Jozef Safarik University, Kosice, Slovak Republic</li> <li>National Medical Library, Prague</li> <li>LinkedIn:</li> <li>mentioned on the ISBT website.</li> </ul> <p><b>Other dissemination:</b></p> <ul style="list-style-type: none"> <li>A report with the monthly content uploaded in TEL is emailed to the editor of <i>Transfusion Medicine Reviews</i>.</li> <li>A report is emailed every six months to with the content uploaded in TEL to the Royal College of Pathologists.</li> </ul>

Section	Our Evidence
	<p><b><i>Transfusion Evidence Library has been cited in the following 26 publications since October 2021:</i></b></p> <ol style="list-style-type: none"> <li>1. Aceto P, Punzo G, Di Franco V, Teofili L, Gaspari R, Avolio AW, et al. Viscoelastic versus conventional coagulation tests to reduce blood product transfusion in patients undergoing liver transplantation: A systematic review and meta-analysis. <i>Eur J Anaesthesiol.</i> 2023;40(1):39-53. PubMed ID: 36412263.</li> <li>2. Al-Riyami AD, S; Saxon, B; Rahimi-Levene, N; Vanden Broeck, J; So-Osman, C; Lin, Y; Stanworth, S. E-learning in transfusion medicine: A scoping review. <i>Vox Sanguinis.</i> 2023;118(S1):Abstract No. P022. Supplement: Abstracts of the 33rd Regional Congress of the ISBT Gothenburg, Sweden 17–21 June 2023.</li> <li>3. Allen G. Intraoperative Transfusion Strategies: A Systematic Review and Meta-Analysis. <i>AORN Journal.</i> 2022;116(6):587-91.</li> <li>4. Avau B, O D, Veys K, Georgsen J, Nahirniak S, Shehata N, et al. Systematic reviews on platelet transfusions: Is there unnecessary duplication of effort? A scoping review. <i>Vox Sanguinis.</i> 2023;118(1):16-23. PubMed ID: 36454598.</li> <li>5. Beverly A, Ong G, Kimber C, Sandercock J, Doree C, Welton NJ, et al. Drugs to reduce bleeding and transfusion in major open vascular or endovascular surgery: a systematic review and network meta-analysis. <i>Cochrane Database of Systematic Reviews.</i> 2023;2:CD013649. PubMed ID: 36800489.</li> <li>6. Brunskill SM, A; Kimber, C; Estcourt, L; Plaza Cajide, A; Doree, C; Clarke, G; White, J; Wood, E. . Introducing 'Transfusion Evidence Round-Ups': An ISBT and systematic review initiative collaboration with a goal to share knowledge to improve transfusion practice worldwide. <i>Vox Sanguinis.</i> 2023;118(S1):Abstract No. P023. Supplement: Abstracts of the 33rd Regional Congress of the ISBT Gothenburg, Sweden 17–21 June 2023.</li> <li>7. Dhiman P, Ma J, Gibbs VN, Rampotas A, Kamal H, Arshad SS, et al. Systematic review highlights high risk of bias of clinical prediction models for blood transfusion in patients undergoing elective surgery. <i>J Clin Epidemiol.</i> 2023;159:10-30. PubMed ID: 37156342.</li> <li>8. Erasu V, Novak A, Gibbs VN, Champaneria R, Dorée C, Hafeez A, et al. Pharmacological interventions for the treatment of bleeding in people treated for blunt force or penetrating injury in an emergency department: a systematic review and network meta-analysis [Protocol]. <i>Cochrane Database of Systematic Reviews.</i> 2022(6):CD014600.</li> <li>9. Gibbs VN, Geneen LJ, Champaneria R, Raval P, Doree C, Brunskill SJ, et al. Pharmacological interventions for the prevention of bleeding in people undergoing definitive fixation or joint replacement for hip, pelvic and long bone fractures. <i>Cochrane Database of Systematic Reviews.</i> 2023(6):CD013499. PubMed ID: 37272509.</li> </ol>

Section	Our Evidence
	<p>10. Kimber C, Lamikanra AA, Geneen LJ, Sandercock J, Dorée C, Valk SJ, et al. A systematic review of the safety and efficacy of convalescent plasma or immunoglobulin treatment for people with severe respiratory viral infections due to coronaviruses or influenza. <i>Transfusion Medicine</i>. 2023;33(1):26-38. PubMed ID: 36412541.</p> <p>11. Laermans J, Van Remoortel H, Scheers H, Avau B, Georgsen J, Nahirniak S, et al. Cost Effectiveness of Different Platelet Preparation, Storage, Selection and Dosing Methods in Platelet Transfusion: A Systematic Review. <i>PharmacoEconomics - Open</i>. 2023;7(5):679-708. PubMed ID: 37365482.</p> <p>12. Lenet T, Baker L, Park L, Vered M, Zahrai A, Shorr R, et al. A Systematic Review and Meta-analysis of Randomized Controlled Trials Comparing Intraoperative Red Blood Cell Transfusion Strategies. <i>Annals of Surgery</i>. 2022;275(3):456-66. PubMed ID: 34319671.</p> <p>13. Lewis SR, Pritchard MW, Estcourt LJ, Stanworth SJ, Griffin XL. Interventions for reducing red blood cell transfusion in adults undergoing hip fracture surgery: an overview of systematic reviews. <i>Cochrane Database of Systematic Reviews</i>. 2023(6):CD013737. PubMed ID: 37294864.</p> <p>14. Lin J-WL, C-I; Cheng, H-M; Lin, S-L; Liu, C-Y; Hsu, T-F. Hemoglobin threshold for blood transfusion among chronic anemic patients: a meta-analysis and implementation of Choosing Wisely campaign. <i>Journal of Taiwan Empirical Medicine Society</i>. 2022;13(2):58-85.</p> <p>15. Lin VS, E; Yau, S; Abeyakoon, C; Seamer, G; Bhopal, S; Tucker, H; Doree, C; Brunskill, S; Mcquiltan, Z; Stanworth, SJ; Wood, E; Green, L. What is a massive transfusion? A scoping review to inform an international consensus definition. <i>HemaSphere</i>. 2023;7:e4792419. Abstract No. S304. Supplement</p> <p>16. Lin VS, Sun E, Yau S, Abeyakoon C, Seamer G, Bhopal S, et al. Definitions of massive transfusion in adults with critical bleeding: a systematic review. <i>Crit Care</i>. 2023;27(1):265. PubMed ID: 37407998.</p> <p>17. 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>Cochrane Database of Systematic Reviews</i>. 2023(9):CD001888. PubMed ID: 37681564.</p> <p>18. Meyer CH, Bailey NM, Leslie SL, Thrasher K, Grady Z, Sanders M, et al. Defining ultra-massive transfusion through a systematic review. <i>American Journal of Surgery</i>. 2023: Article in Press.</p> <p>19. 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.</p>

Section	Our Evidence
	<p>20. Mo A; Poynton MW, E.; Shortt, J; Brunskill, S; Doree, C; Sandercock, J; Saadah, N; Luk, E; Stanworth, S; McQuilten, Z. Does treatment of anaemia improve quality of life or physical function for patients with myelodysplastic syndromes (MDS): a systematic review. <i>Vox Sanguinis</i>. 2023;118(S1): Abstract No. P446</p> <p>Supplement: Abstracts of the 33rd Regional Congress of the ISBT Gothenburg, Sweden 17–21 June 2023.</p> <p>21. Neary E, Murphy CA, Ní Áinle F, El-Khuffash A, Cotter M, Kirkham C, et al. Plasma transfusion to prevent intraventricular haemorrhage in very preterm infants [Protocol]. <i>Cochrane Database of Systematic Reviews</i>. 2023(5):CD012341. PubMed ID:</p> <p>22. Pagano MB, Dennis JA, Idemudia OM, Stanworth SJ, Carson JL. An analysis of quality of life and functional outcomes as reported in randomized trials for red cell transfusions. <i>Transfusion</i>. 2023: Online ahead of print. PubMed ID: 37723866.</p> <p>23. Rajendran L, Lenet T, Shorr R, Abou Khalil J, Bertens KA, Bala FK, et al. Should Cell Salvage Be Used in Liver Resection and Transplantation? A Systematic Review and Meta-analysis. <i>Annals of surgery</i>. 2023;277(3):456-68. PubMed ID: 35861339.</p> <p>24. Roy NBA, Carpenter A, Dale-Harris I, Dorée C, Estcourt LJ. Interventions for chronic kidney disease in people with sickle cell disease. <i>Cochrane Database of Systematic Reviews</i>. 2023(8):CD012380. PubMed ID: 37539955.</p> <p>25. Schofield J, Hosseinzadeh S, Burton K, Pavord S, Dutt T, Doree C, et al. Drug-induced thrombotic thrombocytopenic purpura: A systematic review and review of European and North American pharmacovigilance data. <i>British Journal of Haematology</i>. 2023;201(4):766-73. PubMed ID: 36477772.</p> <p>26. Van Remoortel H, Scheers H, Avau B, Georgsen J, Nahirniak S, Shehata N, et al. Cost-Effectiveness of Thrombopoietin Mimetics in Patients with Thrombocytopenia: A Systematic Review. <i>PharmacoEconomics</i>. 2023;41(8):869-911. PubMed ID: 37145291.</p> <p><b>Stem Cell Evidence</b> <a href="http://www.stemcellevidence.com">www.stemcellevidence.com</a> As of September 2023, the library contains 12,911 records (a rise of ~1200), including 535 RCTs, 649 systematic reviews, and 281 guidelines. From November 2022, Stem Cell Evidence has the facility to highlight Featured Articles, using the functionality developed to display COVID-19 records.</p> <p><b>Stem Cell Evidence usage (taken from Google Analytics data).</b> In the past year (from October 2022 to September 2023), Stem Cell Evidence has had 6,292-page views from 2,262 individual users, from more than 70 countries.</p>

Section	Our Evidence
	<p>· Stem Cell Evidence users by country were: 29% from UK, 25% from USA, 4% from Netherlands, 3% each from China, Australia, Mexico and India, and 2% each from Germany, Portugal and Italy.</p> <p>· Most users (87%) came to Stem Cell Evidence directly, either by typing the URL or using a bookmark; 6% of users arrived by social media, and 5% of users arrived by searching the internet.</p> <p><b>Stem Cell Evidence Alert.</b> We have 1,252 subscribers to the Stem Cell Evidence Alert.</p> <p><b>Stem Cell Evidence on Twitter/X (@evidencestemc).</b> On 18th October 2021 Stem Cell Evidence had 547 followers [a 8% 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.</p> <p>A link to Stem Cell Evidence can be found on 33 websites, including</p> <ul style="list-style-type: none"> <li>• Albertina icome Praha</li> <li>• Cochrane Haematology</li> <li>• Canterbury Christ Church University</li> </ul>
<b>Awards and Recognition</b>	<p><b>People</b></p> <ul style="list-style-type: none"> <li>• <b>Lise Estcourt</b> has been awarded the 2023 Kenneth Goldsmith Award from the British Blood Transfusion Society.</li> </ul>
<b>Use of Facilities &amp; Resources</b>	<p><b>Resources:</b></p> <p>We continue to use Covidence for all our screening activities and although have used Covidence to undertake data extraction for the Cochrane reviews in our NIHR Cochrane Programme Grant and some smaller systematic reviews, we have not yet tried the updated Covidence for data extraction on large reviews or on reviews where the data is complex or when some customisation of the preformatted Covidence data sheets is needed. We have therefore chosen not to use Covidence exclusively for data extraction.</p> <p><b>Training Received:</b></p> <p>SRI team members have attended the following training activities since 1<sup>st</sup> November 2022:</p> <p><u>Susan Brunskill</u></p> <ul style="list-style-type: none"> <li>• Attended “Cochrane New review format” webinar, November 2022</li> <li>• Attended NHS Elect updates for leaders, four 1 hour workshops through November 2022</li> </ul>

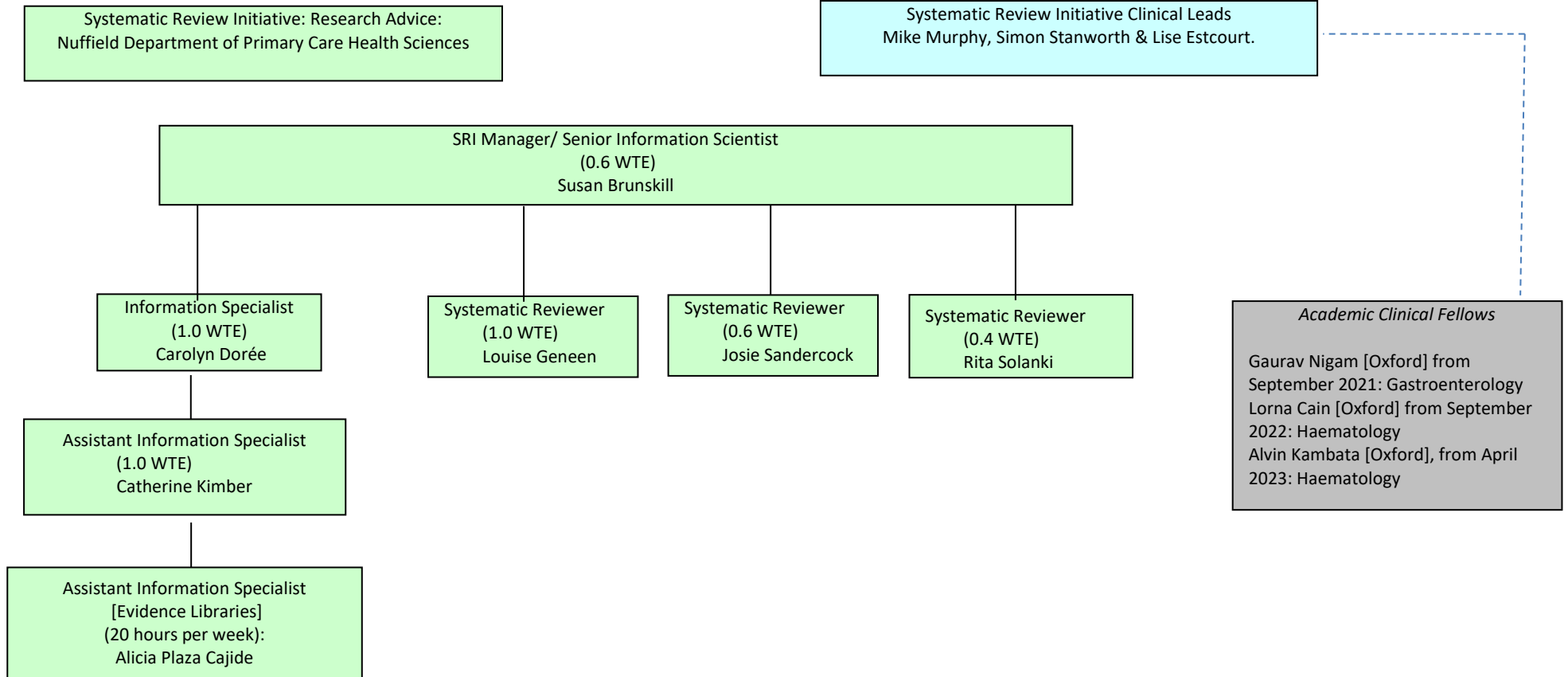
Section	Our Evidence
	<ul style="list-style-type: none"> <li>• Attended “Exporting data (Extraction 1) in Covidence” webinar, May 2023</li> <li>• Attended Cochrane Colloquium, September 2023 attending workshops on scoping reviews, how to undertake overviews of systematic reviews, conducting rapid qualitative evidence synthesis and oral sessions on evidence synthesis and RoB2, risk of bias analysis of qualitative studies and methodological quality and evidence synthesis innovation.</li> </ul> <p><u>Carolyn Doree</u></p> <ul style="list-style-type: none"> <li>• Deduklick: automated deduplication using AI workshop. Risklick, September 2022</li> <li>• What’s going on with my search? Database quirks and expert searching in the health sciences. University of Michigan, October 2022</li> <li>• Cochrane new review format webinar, November 2022</li> <li>• Finding search filters for study designs: using the ISSG Search Filter Resource. Julie Glanville, June 2023</li> <li>• ClinicalTrials.gov for Librarians (Advanced). NLM, August 2023</li> <li>• NLM What’s new in Pubmed? NLM, August 2023</li> <li>• Attended Cochrane Colloquium: workshops on searching for rapid reviews, WHO ICTRP, and how to use Shiny Apps in information retrieval (September 2023)</li> </ul> <p><u>Louise Geneen</u></p> <ul style="list-style-type: none"> <li>• Participation in development of RMW Porto and RMW development demonstrations (fortnightly meetings, 22April 2022 – ongoing)</li> <li>• Interview: gave feedback on development of RevManWeb team (one-to-one, online, various times)</li> <li>• Attended NHSBT R&amp;D conference (October 2023)</li> <li>• Attended Cochrane Colloquium: workshops on scoping reviews, GRADE rating of imprecision, and analysis of interrupted-time-series studies (Sept 2023).</li> <li>• Edward Jenner: 3 – Leading in and beyond my team (NHS Leadership Academy) (June 2023 – ongoing)</li> <li>• Edward Jenner: 2 – Leading through relationships (NHS Leadership Academy) (April-June 2023)</li> <li>• Edward Jenner: 1 – Exploring what leadership means to me (NHS Leadership Academy) (Jan-Mar 2023)</li> <li>• Edward Jenner: 0 – An introduction to Personal Development (NHS Leadership Academy) (Jan 2023)</li> </ul> <p><u>Catherine Kimber</u></p> <ul style="list-style-type: none"> <li>• Attended “Cochrane New review format” webinar, November 2022</li> <li>• Attended “PRISMA reporting and Covidence” webinar, 20<sup>th</sup> April 2023</li> <li>• Undertook online course “Cochrane Interactive Learning Module 10: Network Meta-Analysis, May 2023</li> </ul>

Section	Our Evidence
	<ul style="list-style-type: none"> <li>• Attended and participated in 8<sup>th</sup> Course on Network Meta-Analysis, 19<sup>th</sup>-21<sup>st</sup> June 2023</li> <li>• Attended “NHSBT Clinical R&amp;D Conference” 2<sup>nd</sup> &amp; 3<sup>rd</sup> October 2023</li> </ul> <p><u>Alicia Plaza-Cajide</u></p> <ul style="list-style-type: none"> <li>• Good Practice with Images course (June 2023), IT Learning Centre, University of Oxford.</li> <li>• Posters: Improving your research posters course (June 2023), IT Learning Centre, University of Oxford.</li> <li>• iSkills for the Medical Sciences Division and OUH Trust: Introduction to searching: how to find literature on a topic in medicine and health care (June 2023), IT Learning Centre, University of Oxford.</li> <li>• Exploring Stress in our Behaviour Webinar by The Healthy Employee Ltd, (January 2023), via NHSBT.</li> <li>• Illustrations: Effective workflows (InkScape) course (November 2022), IT Learning Centre, University of Oxford.</li> </ul> <p><u>Josie Sandercock</u></p> <ul style="list-style-type: none"> <li>• Undertaken own learning and development in Network Meta-analysis and R.</li> <li>• Attended Cochrane Colloquium: (September 2023)</li> <li>• Attended NHSBT R&amp;D conference (October 2023)</li> </ul> <p><u>Rita Solanki</u></p> <ul style="list-style-type: none"> <li>• Attended ‘NHSBT Research and Development Conference’, 3<sup>rd</sup> October 2023</li> <li>• Attended ‘Statistics and Clinical Research seminar series’ – ‘Patient Blood Management’, 12<sup>th</sup> September 2023</li> <li>• Attended ‘Statistics and Clinical Research seminar series’ – ‘Our Voice Results’, 4<sup>th</sup> July 2023</li> </ul>
<b>Other Outputs &amp; Knowledge</b>	<p>The information science workload has remained constant this past year. In addition to the core search activities for our reviews and the libraries, during 2022/3, Carolyn has also given full information science support to the following projects (with costs recovered for the SRI):</p> <ol style="list-style-type: none"> <li>i. BTRU Economic studies in blood transfusion scoping review – search strategy design and full search (Simon Stanworth, October 2022)</li> <li>ii. Search strategy design to support the publication of the DASH (Desmopressin for Intracerebral Haemorrhage) trial ahead of Lancet publication (Mike Desborough, Aprile 2023).</li> <li>iii. Risk of infection associated with intravenous iron preparations: update search (Akshay Shah, September 2023)</li> <li>iv. BTRU Data Driven Transfusion Practice: The Impact of Blood Transfusion on Recurrence and Mortality Following (Solid) Cancer Surgery/Resection search strategy design and full search, (Simon Stanworth, November 2022; update search October 2023).</li> <li>v. Jeff Carson’s Transfusion Thresholds review (Cochrane), update search, (Simon Stanworth, August 2023).</li> </ol>



Section	Our Evidence

**PAPER C, APPENDIX 1: SRI staff November 2022 to current**



**Funding Streams**

- SRI core funding:UK Forum
- NHSBT core funding
- Other funding, not linked to SRI funding.

