PAPER C: Report of SRI activities and Impact for the year November 2018 to November 2019

EXECUTIVE SUMMARY.

Since November 2018:

- Eight systematic full reviews, three systematic review protocols and two methods papers were completed and published (see citations detailed on page 2).
- In addition, one Cochrane systematic review is in the final copy editing stages and two Cochrane systematic review protocols are in the Cochrane peer review process.
- Supported the setup of four new systematic reviews and two updates of Cochrane reviews] (see Paper E).
- We have updated our dissemination policy and now monitor dissemination activities for all our publications.
- We started work on our second NIHR Cochrane programme grant [16/114/04]: "Alternatives and adjuncts to transfusion to prevent and treat bleeding in people who are at risk of serious or life-threatening bleeding" and have published the protocol for one of the four reviews being undertaken in this programme grant. [The three other protocols are in the late stages of the Cochrane peer review process]. All four members of staff employed through the grant completed statistical methods based training in June 2019.
- We recruited and employed a part time Assistant Information Specialist who is focused on curating and updating content for the Transfusion Evidence Library.
- We have explored options and opportunities for external sponsorship for our electronic libraries (see Paper F).
- We are continuing to work towards 'free at the point of access for the Transfusion Evidence Library and the Stem Cell Evidence Library which will require sponsorship from external sources (see additional paper).
- We have continued to grow our Twitter accounts [@TransfusionLib, @sritransfusion and @stemcell] to engage with our library communities increase our dissemination activities.
- We successfully agreed a relationship with Professor Rafael Perera from University of Oxford's Nuffield Department of Primary Care Health Sciences Medical Sciences Division with regards to providing statistical support on an as-and-when basis for the group.

Section	Our Evidence
Publications since November 2018 [last face to face SRI steering group meeting]; listed alphabetically by first author. [Authors in bold are members of the SRI] * Systematic reviews that are being undertaken as part of our NIHR Cochrane programme grant [16/114/04]:	***Beverly A, Ong G,** Wilkinson KL, **Doree C,** Welton NJ, **Estcourt LJ.** Drugs to reduce bleeding and transfusion in adults undergoing cardiac surgery: a systematic review and network meta-analysis. Cochrane Database of Systematic Reviews 2019, Issue 9. Art.No.:CD013427. DOI: 10.1002/14651858.CD013427. **[Protocol]** https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013427/full Browne A, **Fisher SA,** Masconi K, Smith G**, Doree C,** Chung R, Rahimzadeh M, Shah A, Rodriguez SA, Bolton T, Kaptoge S, Wood A, Sweeting M, Roberts DJ. Donor Deferral due to low haemoglobin – an updated systematic review. Transfusion Medicine Reviews 2019. https://doi.org/10.1016/j.tmrv.2019.10.002 **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. Cochrane Database of Systematic Reviews 2018, Issue 12. Art.No.: CD010649. DOI: 10.1002/14651858.CD010649.pub2. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD010649.pub2/full **Fisher SA,** Cutler A, **Doree C, Brunskill SJ, Stanworth SJ,** Navarrete C, Girdlestone J. Mesenchymal stromal cells as treatment or prophylaxis for acute or chronic graft versus-host disease in haematopoietic stem cell transplant (HSCT) recipients with a haematological condition. Cochrane Database of Systematic Reviews 2019, Issue 1. Art.No.:CD009768. DOI: 10.1002/14651858.CD009768.pub2. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD009768.pub2/full **Fisher SA,** Rahimzadeh M, Brierley C, Gration B, **Doree C, Kimber CE, Plaza Cajide A**, Lamikanra AA, Roberts DJ. The role of vitamin D in increasing circulating T regulatory cell numbers and modulating T regulatory cell phenotypes in patients with inflammatory disease or in healthy volunteers: A systematic review. PLoS ONE 2019; 14(9): e0222313. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0222313 ***Gibbs VN, Champaneria R**, Palmer A, **Doree C, 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 of Systematic Reviews 2019, Issue 3. Art.No.:CD013295. DOI: 10.1002/14651858.CD013295. **[Protocol]** https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013295/full

	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. Transfusion. 2019 Feb;59(2):574-581. doi: 10.1111/trf.15077. Epub 2018 Dec 2. https://doi.org/10.1111/trf.15077 **Shah A, Brunskill SJ**, Desborough MJR, **Doree C**, Trivella M, **Stanworth SJ**. Transfusion of red blood cells stored for shorter versus longer duration for all conditions. Cochrane Database of Systematic Reviews 2018, Issue 12. Art.No.: CD010801. DOI: 10.1002/14651858.CD010801.pub3. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD010801.pub3/full **Shah A, Fisher SA**, **Wong H,** Roy NB, McKechnie S, **Doree C**, Litton E, **Stanworth SJ**. Safety and efficacy of iron therapy on reducing red blood cell transfusion requirements and treating anaemia in critically ill adults: A systematic review with meta-analysis and trial sequential analysis. *Journal of Critical Care.* 2018 Nov 10; 49:162-171. DOI: 10.1016/j.jcrc.2018.11.005. https://doi.org/10.1016/j.jcrc.2018.11.005 **Shah A, Palmer AJ, Fisher SA**, Rahman SM, **Brunskill S, Doree C,** Reid J Sugavanam A, **Stanworth SJ**. What is the effect of perioperative intravenous iron therapy in patients undergoing non-elective surgery? A systematic review with meta-analysis and trial sequential analysis. *Perioperative Medicine (Lond).* 2018 Dec 12;7:30. DOI: 10.1186/s13741-018-0109-4. eCollection 018.https://doi.org/10.1186/s13741-018-0109-4 **Shah A** and Smith AF. Trial sequential analysis: adding a new dimension to meta-analysis. Anaesthesia 2019. DOI: 10.1111/anae.14705. https://onlinelibrary.wiley.com/doi/abs/10.1111/anae.14705 **Shah A,** Sugavanam A, Reid J, **Palmer AJ**, Dickson E, **Brunskill S**, **Doree C,** Oliver CM, Acheson A, Baikady RR, Bamipoe S, Litton E, **Stanworth S**. Risk of infection associated with intravenous iron preparations: protocol for updating a systematic review. BMJ Open 2019;9: e024618. DOI: 10.1136/bmjopen-2018-024618. **[Protocol]** http://dx.doi.org/10.1136/bmjopen-2018-024618 Trivella M, **Stanworth SJ, Brunskill S**, Dutton P, Altman DG. BMJ 2019;365: l 2320. Can we be certain that storage duration of transfused red blood cells does not affect patient outcomes? https://doi.org/10.1136/bmj.l2320

Collaborations with people outside the SRI. These have been grouped by type of project. New collaborators this year are identified by an * at the beginning of their details.	We have collaborated with many clinicians and researchers over the last 12 months. Their names and affiliations are provided here: ***Stem Cell Evidence*:** Dr Jenny Byrne - Nottingham City Hospital, Nottingham, UK and President of the British Society of Blood and Marrow Transplantation; Dr Rob Danby - Oxford University Hospitals NHS Foundation Trust, UK; Dr James Griffin – NHSBT Bristol, UK; Mr John Muth - Evidentia Publishing, UK; Mr Mark Schregardus – Evidentia Publishing, The Netherlands; Professor Paresh Vyas – Oxford BRC & University of Oxford, UK; ***NIHR Cochrane Programme Grant*** Cochrane Heart Group [co-applicant]; Cochrane Injuries Group [co-applicant]; Cochrane Vascular Group; Dr Nikki Curry - Oxford University Hospitals NHS Foundation Trust, UK [co-applicant]; Dr Neil Hawkins - Cochrane Complex Reviews Unit, UK; Professor Nicky Welton – University of Bristol; Dr Kirstin Wilkinson - University Hospital Southampton, UK [co-applicant]; Dr Olivia Wu - Cochrane Complex Reviews Unit, UK; ***Systematic review collaborators:*** *Dr Austin Acheson - Queen's Medical Centre, Nottingham, UK; *Dr Ravi Baikady - Royal Marsden NHS Foundation Trust, London, UK; *Dr Sohail Bamipoe - University College London Hospitals NHS Foundation Trust, London, UK; *Tamara Brown – University of Stirling, Stirling, UK; Dr Charlotte Brierley – Oxford University Hospitals NHS Foundation Trust, UK; *Dr Rebecca Cardigan - NHSBT, UK; Dr Nikki Curry - Oxford University Hospitals NHS Foundation Trust, UK; Dr Antony Cutler - NHSBT, Cambridge, UK and University of Cambridge, UK Dr Ross Davenport - Barts and the London School of Medicine and Dentistry, Queen Mary University of London, UK; Dr Mike Desborough - Oxford University Hospitals NHS Foundation Trust, UK;

	*Dr Edward Dickson - Oxford University Hospitals NHS Foundation Trust, UK; Paula Dhiman – University of Oxford, Oxford, UK; Graham Donald - Patient and Public representative; Dr Jez Fabes – Royal Free Hospital, London; Dr Betty Gration - University College London Hospitals NHS Foundation Trust, London, UK; Dr John Girdlestone - NHSBT, UK; Dr Laura Green – NHSBT & Barts Health NHS Trust, UK; *Dr George Greenhall - NHSBT, UK; Kennedy Hao – Medical Student, University of Toronto, Canada; Dr Stephen Hibbs - University of Oxford, UK; Dr Jonathan Huber - University Hospital Southampton, UK; *Dr Ruchi Kohli - Queen Mary University of London & Barts Health NHS Trust, UK; Dr Abi Lamikanra - NHSBT, & University of Oxford, Oxford, UK; Dr Lani Lieberman - University Health Network & University of Toronto, Canada; Dr Ed Litton – St John of God Hospital, Perth, Western Australia, Australia; *Dr Tom Lloyd - Oxford University Hospitals NHS Foundation Trust, UK; *Dr Eleni Louka - University of Oxford and Oxford University Hospitals NHS Foundation Trust, UK; Jo Mccullagh – Barts Health NHS Trust, UK; Dr Stuart McKechnie - Oxford University Hospitals NHS Foundation Trust, UK; *Hollie McKenna - NHSBT, UK; Dr Zoe McQuilten - Monash University, Melbourne, Australia; Dr Rebecca Mellor – NHSBT, UK; Dr Yazan Migdady – National Heart, Lung and Blood Institute, Washington, USA; Dr Allison Mo - Monash University, Melbourne, Australia; Dr Suzy Morton – NHSBT & University Hospitals Birmingham NHS Foundation Trust, UK; *Dr Karen Noeh – St Gemma's Academic Unit of Palliative Care, University of Leeds, Leeds, UK; *Dr Alex Novak - Oxford University Hospitals NHS Foundation Trust, UK; *Dr Charles Oliver - University College London, London, UK; Dr Antony Palmer – University of Oxford and Oxford University Hospitals NHS Foundation Trust, UK; *Dr Shah Rahman - Frimley Health NHS Foundation Trust, Camberley, UK; *Dr Mana Rahimzadeh – Medical student, University of Oxford, Oxford, UK; *Dr Jack Reid - Brighton and Sussex University Hospitals NHS Trust, Brighton and Hove, UK; Dr Noemi Roy - Oxford University Hospitals NHS Foundation Trust, UK;

	*Dr Alex Rampatos – Oxford University Hospitals NHS Foundation Trust, UK; *Dr Anita Sugavanam - Brighton and Sussex University Hospitals NHS Trust, Brighton and Hove, UK; Heather Saunders - Patient and Public representative; Dr Akshay Shah - Oxford University Hospitals NHS Foundation Trust, UK; *Dr Andrew Smith – Lancaster Royal Infirmary/ Lancaster University, Lancaster, UK; Dr Marialena Trivella - Centre for Statistics in Medicine, University of Oxford, Oxford, UK; Dr David Taggert - Oxford University Hospitals NHS Foundation Trust, UK; Dr Henna Wong - Oxford University Hospitals NHS Foundation Trust, UK; Dr Erica Wood - Monash University, Melbourne, Australia.
Further Funding	Three funding applications were made between November 2018 and November 2019: 1) Lise Estcourt has made an application to the World Cancer Research Fund [WCRF] International Research Funding Team funds to support systematic reviews on "Evidence for impact in adult cancer survivors: The role of micronutrients on overall survival, quality of life and adverse events - systematic reviews with meta-analyses". Iron folate and b12 are two of the micronutrients featured in the application, hence the involvement of the SRI. Susan Brunskill is one of the Co-applicants. The application was made in October 2019 between Lise Estcourt and the Cochrane Cancer Network and Cochrane Nutrition. If the application is successful, new systematic reviewers will be based both in Oxford and with the Cochrane Haematological Group in Germany. 2) A successful application was made by Lise Estcourt to NHSBT for one year's salary for each of the Clinical Research Fellows employed through our NIHR Cochrane Programme grant. The programme grant provided enough money to fund two full time Clinical Research Fellows for two years each. However as both postholders have successfully applied in 2019 to The University of Oxford for undertake PhD's, salary funds for year 3 were needed and have been acquired. 3) Akshay Shah made a successful funding application for £13,420 to Human Iron Research Oxford at the University of Oxford for a study titles "Erythroferrone in critical illness anaemia: an opportunity for novel mechanistic insights and developing clinical prediction models". We will be making a funding application to UK Forum in December 2019 to ensure the ongoing survival of our electronic libraries.
Next Destination & Skills	There have been changes to SRI core staff – see organogram [Appendix 1] for full details.

	Dr **Sheila Fisher** left the SRI at the end of October 2019. Sheila has retired from active clinical research and has relocated to Shropshire. Two members of staff who worked with SRI during the last year have moved on to new roles during this period: Dr **Charlotte Brierley** was an Academic Clinical Fellow between 2016 and 2019 and in early 2019 moved to be a Clinical Research Fellow at the Weatherall Institute of Molecular Medicine, University of Oxford, United Kingdom Dr **Henna Wong** was a Clinical Research Fellow in NHSBT between September 2016 and September 2019, whilst undertaking her PhD. Since September 2019 she has returned to clinical practice to complete her registrar training. *Their publications:* Clifford DM, **Fisher SA,** Brunskill SJ, Doree C, Mathur A, Watt S, Martin-Rendon E (2012) Stem cell treatment for acute myocardial infarction. Cochrane Database of Systematic Reviews; (Issue 2):CD006536. DOI: 10.1002/14651858.CD006536.pub3. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD006536.pub3/full Clifford DM, **Fisher SA**, Brunskill SJ, Doree C, Mathur A, Clarke MJ, Watt SM, Martin-Rendon E (2012) Long-term effects of autologous bone marrow stem cell treatment in acute myocardial infarction: factors that may influence outcomes. PLoS One; 7(5): e37373. DOI: 10.1371/journal.pone.0037373. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0037373 Desborough MJ, Oakland K, **Brierley C**, Bennett S, Doree C, Trivella M, Hopewell S, Stanworth SJ, Estcourt LJ. Desmopressin use for minimising perioperative blood transfusion. Cochrane Database of Systematic Reviews 2017 Jul 10;7:CD001884. doi: 10.1002/14651858.CD001884.pub3. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD001884.pub3/ **Fisher SA,** Allen D, Doree C, Naylor J, Aangelantonio ED, Roberts DJ. Interventions to reduce vasovagal reactions in blood donors: a systematic review and meta-analysis. Transfusion Medicine; 2016, 26(1):15-33. https://onlinelibrary.wiley.com/doi/full/10.1111/tme.12275 **Fisher SA**, Brunskill SJ Doree C Chowdhury O, Gooding S, Roberts DJ. Oral deferiprone for iron chelation in people with thalassaemia. Cochrane Database of Systematic Reviews 2013; (Issue 8):CD004839. DOI:

	10.1002/14651858.CD004839.pub3. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD004839.pub3/full **Fisher SA**, Brunskill SJ, Doree C, Gooding S, Chowdhury O, Roberts DJ. Desferrioxamine mesylate for managing transfusional iron overload in people with transfusion-dependent thalassaemia. Cochrane Database of Systematic Reviews 2013; (Issue 8):CD004450. DOI: 10.1002/14651858.CD004450.pub3. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD004450.pub3/full **Fisher SA**, Brunskill SJ, Doree C, Mathur A, Taggart DP, Martin-Rendon E. Stem cell therapy for chronic ischaemic heart disease and congestive heart failure. Cochrane Database of Systematic Reviews 2014; CD007888. DOI: 10.1002/14651858.CD007888.pub2. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD007888.pub3/full **Fisher SA,** Cutler A, Doree C, Brunskill SJ, Stanworth SJ**,** Navarrete C, Girdlestone J. Mesenchymal stromal cells as treatment or prophylaxis for acute or chronic graft versus-host disease in haematopoietic stem cell transplant (HSCT) recipients with a haematological condition. Cochrane Database of Systematic Reviews 2019, Issue 1. Art.No.:CD009768. DOI: 10.1002/14651858.CD009768.pub2. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD009768.pub2/full **Fisher SA**, Doree C, Brunskill SJ, Mathur A, Martin-Rendon E. Bone marrow stem cell treatment for ischemic heart disease patients with no option of revascularization: a systematic review and metaanalysis. PLoS ONE 2013; 8(6): e64669. DOI: 10.1371/journal.pone.0064669. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0064669 **Fisher SA,** Doree C, Mathur A, Martin-Rendon E. Meta-analysis of cell therapy trials for patients with heart failure – an update. Circulation Research 2015; 116(8):1361-1377. DOI: 10.1161/CIRCRESAHA.116.304386. https://www.ahajournals.org/doi/full/10.1161/CIRCRESAHA.116.304386?url_ver=Z39.88-2003&rfr_id=ori%3Arid%3Acrossref.org&rfr_dat=cr_pub%3Dpubmed **Fisher SA,** Doree C, Mathur A, Taggert DP, Martin-Rendon E. Cochrane Corner: stem cell therapy for chronic ischaemic heart disease and congestive heart failure. *Heart* Published Online First: 12 June 2017. doi: 10.1136/heartjnl-2017-311684 http://dx.doi.org/10.1136/heartjnl-2017-311684

	Fisher SA, Doree C, Mathur A, Taggart DP, Martin-Rendon E. Stem cell therapy for chronic ischaemic heart disease and congestive heart failure. Cochrane Database Systematic Reviews. 2016 Dec 24;12:CD007888. https://www.ncbi.nlm.nih.gov/pubmed/28012165 **Fisher SA,** Doree C, Taggert DP, Mathur A, Martin-Rendon E. Cell therapy for heart disease: Trial sequential analyses of two Cochrane reviews. Clinical Pharmacology and Therapeutics*;* 2016 Jul;100(1):88-101. https://ascpt.onlinelibrary.wiley.com/doi/abs/10.1002/cpt.344 **Fisher SA**, Lamikanra A, Doree C, Gration B, Tsang P, Danby RD, Roberts DJ. Increased regulatory T cell graft content is associated with improved outcome in haematopoietic stem cell transplantation: a systematic review. British Journal of Haematology. 2017 doi:10.1111/bjh.14433 http://onlinelibrary.wiley.com/doi/10.1111/bjh.14433/full **Fisher SA,** Rahimzadeh M, Brierley C, Gration B, Doree C, Kimber CE, Plaza Cajide A, Lamikanra AA, Roberts DJ. The role of vitamin D in increasing circulating T regulatory cell numbers and modulating T regulatory cell phenotypes in patients with inflammatory disease or in healthy volunteers: A systematic review. PLoS ONE 2019; 14(9): e0222313. https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0222313 **Fisher SA**, Zhang H, Doree C, Mathur M, Martin–Rendon E. Stem cell treatment for acute myocardial infarction. Cochrane Database of Systematic Reviews. 2015 Sep 30;9:CD006536. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD006536.pub4/full **Fortin PM,** Fisher SA, Madgwick KV, Trivella M, Hopewell S, Doree C, Estcourt LJ. Interventions for improving adherence to iron chelation therapy in people with sickle cell disease or thalassaemia. *Cochrane Database of Systematic Reviews* 2018, Issue 5. Art. No.: CD012349. DOI: 10.1002/14651858.CD012349.pub2. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD012349.pub2/full Harvey E, **Fisher SA**, Doree C, Taggart DP, Martin-Rendon E. Current evidence of the efficacy of cell based therapies in heart failure. Circulation Journal 2015; 79(2):229-236. DOI: 10.1253/circj.CJ-14-1415. https://www.jstage.jst.go.jp/article/circj/79/2/79_CJ-14-1415/_article Shah A, **Fisher SA, Wong H**, Roy NB, McKechnie S, Doree C, Litton E, Stanworth SJ. Safety and efficacy of iron therapy on reducing red blood cell transfusion requirements and treating anaemia in critically ill adults: A systematic review with

	meta-analysis and trial sequential analysis. *Journal of Critical Care.* 2018 Nov 10; 49:162-171. DOI: 10.1016/j.jcrc.2018.11.005. https://doi.org/10.1016/j.jcrc.2018.11.005 Smith GA, **Fisher SA**, Doree C, Di Angelantonio E, Roberts DJ. Oral or parenteral iron supplementation to reduce deferral, iron deficiency and/or anaemia in blood donors. Cochrane Database of Systematic Reviews 2014, Issue 7. Art. No.: CD009532. DOI: 10.1002/14651858.CD009532.pub2. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD009532.pub2/full Smith GA, **Fisher SA,** Doree C, Roberts DJ. A systematic review of factors associated with the deferral of donors failing to meet low haemoglobin thresholds. Transfusion Medicine 2013. DOI: 10.1111/tme.12046. https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD009532.pub2/full **Wong H,** Pottle J, Curry N, Stanworth SJ, Brunskill SJ, Davenport R, Doree C. Strategies for use of blood products for major bleeding in trauma (Protocol). Cochrane Database of Systematic Reviews 2017, Issue 4. Art. No.: CD012635. DOI: 10.1002/14651858.CD012635. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD012635/pdf
Engagement Activities	***Social media activity:*** We run 3 Twitter 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. These accounts have a combined total of over 2200 followers (221 for Stem Cell Evidence, 1796 for Transfusion Evidence Library and 221 for SRI). ***Electronic Libraries Events activity*** Fliers for the Transfusion Evidence Library were / will be handed on the following events: • Oxford Centre for Haematology 2nd Annual meeting on July 2019 • Oxford Anaemia and Iron Mini-symposium, October 2019 • BSBMT Conference, October 2019 • Non-malignant Haematology patient evening, November 2019 In September 2019 an Electronic Libraries email address was created which we will use to make email contact with the authors of the 10 references included in each months Evidence Alert. The email will introduce the concept of the Evidence Alerts and inform authors that their paper is featured in one of our Electronic Libraries. ***Talks or Presentations:***

	Members of the SRI have given the following talks over the last year: - • ***[Lise Estcourt]:*** Platelet transfusions. Advances in Transfusion Medicine, Royal College of Pathologists (RC Path), London, 22nd November 2018. • ***[Mike Murphy]:*** Benefits and Lessons Learnt from Developing and Implementing a Comprehensive Electronic Transfusion Process Including Clinical Decision Support, ATTC: Digital Network Stream Workshop, London, 19th February 2019; • ***[Lise Estcourt]:*** Evidence on the use of platelets and plasma prior to procedures. American Association of Blood Banks, Webinar, 6th March 2019. • ***[Mike Murphy]:*** Is Accreditation needed for Patient Blood Management? Transfusion 2024 Symposium, London, 27th March 2019; • ***[Naomi Gibbs]:*** gave a talk at the TRIPOM [Trainees with an Interest in Perioperative Medicine] Conference on the Management of Preoperative Anaemia, on 3rd April 2019. • ***[Susan Brunskill]:*** presented a summary of the systematic review "Prohaemostatic factor concentrates for bleeding – what is the evidence?" at the Thames Valley Strategic Clinical Networks NSSG-Haematology meeting 'Update on Aspects of Non-Malignant Haematology' on 15th May 2019; • ***[Mike Murphy]:*** Electronic systems for patient safety in hospitals, Georgetown University, Washington, USA on 16th May 2019; • ***[Akshay Shah]:*** "INtravenous Iron to Treat Anaemia following CriTical Care" (Oral presentation) - UK Critical Care Research Group Meeting, Leeds, UK, 06 Jun 2019; • ***[Mike Murphy]:*** Electronic identification systems reduce the number of wrong components transfused, Haemonetics User Group meeting, Coventry, 27th June 2019; • ***[Lise Estcourt]:*** Use of platelets and plasma. British Blood Transfusion Society [BBTS] Annual Conference, Harrogate, 19th September 2019. • ***[Mike Murphy]:*** Self-Assessment for Patient Blood Management, NHSBT PBM Meeting, Birmingham, 7th October 2019; • ***[Akshay Shah***]: "Iron and critical illness" at the Oxford Anaemia and Iron Symposium, Oxford on 15th October 2019; • ***[Naomi Gibbs]:*** gave a talk at the National Centre for Modernising Transfusion Practice Congress on "Preoperative Anaemia in Elective Orthopaedic Surgery" on the 12th November 2019 ***Provision of training to external collaborators:*** We have provided on-the-project training to all our new [identified by an Asterix in the Collaborations section above] collaborators as required. For systematic reviews this included an understanding of the review process and methodology as well as training on how to use Covidence and Review Manager software packages.

	Mike Murphy and Akshay Shah have been faculty members for Transfusion Camp an international transfusion education program for multispecialty postgraduate trainees. This is currently in its 4th year of running.
Influence on Policy	We recorded **the number of citation**s [Science Citation Index, Scopus citation count and Altimetric score] for our systematic reviews at October 2019. Please refer to PAPER C1 for this information. ***17 Guideline*s were published in late 2018 to October 2019 that have been informed by SRI systematic reviews**: **Arsenic trioxide for treating acute promyelocytic leukaemia (2018).** *National Institute for Health and Care Excellence.* URL.: www.nice.org.uk/guidance/ta526 1 review: Estcourt LJ, Desborough M, Brunskill SJ, Doree C, Hopewell S, Murphy MF, Stanworth SJ. (2016). "Antifibrinolytics (lysine analogues) for the prevention of bleeding in people with haematological disorders." Cochrane Database of Systematic Reviews 2016: 3: CD009733 **British Society of Haematology Guideline: management of thrombotic and haemostatic issues in paediatric malignancy (2018).** Sibson KR, Biss TT, Furness CI, Grainger JD, Hough RE, Macartney C, Payne JH, Chalmers EA. *British Journal of Haematology* 180(4): 511-525. https://www.ncbi.nlm.nih.gov/pubmed/29384193 1 review: Estcourt, L., et al. (2012). "Prophylactic platelet transfusion for prevention of bleeding in patients with haematological disorders after chemotherapy and stem cell transplantation." *Cochrane Database of Systematic Reviews* (5): CD004269. **Deutsche Gesellschaft für Pneumologie und Beatmungsmedizin e.V. (DGP). S2k-Leitlinie: Prolonged Weaning. [S2k-guideline: Prolonged Weaning] (2019).** Schönhofer B, Geiseler J, Braune S, Dellweg D, Fuchs H, Hirschfeld-Araujo J, Janssens U, Mörer O, Rollnik J, Rosseau S, Schreiter D, Weber-Carstens S, Windisch W, Westhoff M. (2019). Berlin: Deutsche Gesellschaft für Pneumologie und Beatmungsmedizin e.V. (DGP). URL: https://www.awmf.org/uploads/tx_szleitlinien/020-015l_S2k_Prolongiertes_Weaning_2019_09.pdf 1 Review: Carson JL, Stanworth SJ, Roubinian N, Fergusson DA, Triulzi D, Doree C, Hebert PC. Transfusion thresholds and other strategies for guiding allogeneic red blood cell transfusion. *Cochrane Database of Systematic Reviews*

	2016, Issue 10. Art. No.: CD002042. DOI: 10.1002/14651858.CD002042.pub4. **Guidelines on the use of Therapeutic Apheresis in Clinical Practice – Evidence-Based Approach from the Writing Committee of the American Society for Apheresis: The Eighth Special Issue (2019)**. Padmanabhan, A, Connelly-Smith, L, Aqui, N, et al. *Journal of Clinical Apheresis*, 2019; 34: 171– 354. URL: https://doi.org/10.1002/jca.21705 1 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. *Transfusion Medicine* 2007;17:17-35. **Korean Clinical Practice Guideline for Perioperative Red Blood Cell Transfusion from Korean Society of Anesthesiologists (2018)**. Koo BN, Kwon MA, Kim SH, Kim JY, Moon YJ, Park SY, Lee EH, Chae MS, Choi SU, Choi JH, Hwang JY; Korean Society of Anesthesiologists. *Korean Journal of Anesthesiology*. Dec, 2018. [Epub ahead of print]. URL: https://www.ncbi.nlm.nih.gov/pubmed/30513567 1 Review: Carson JL, Stanworth SJ, Roubinian N, Fergusson DA, Triulzi D, Doree C, Hebert PC. Transfusion thresholds and other strategies for guiding allogeneic red blood cell transfusion. *Cochrane Database of Systematic Reviews* 2016, Issue 10. Art. No.: CD002042. **Management of cancer-associated anemia with erythropoiesis-stimulating agents: ASCO/ASH clinical practice guideline update (2019).** Bohlius J, Bohlke K, Castelli R, Djulbegovic B, Lustberg MB, Martino M, Mountzios G, Peswani N, Porter L, Tanaka TN, Trifirò G, Yang H, Lazo-Langner A**.** *Journal of Clinical Oncology* 2019, 37(15):1336-1351. & *Blood Advances* 2019, 3(8):1197-1210. 1 Review: Bohlius J, Wilson J, Seidenfeld J, Piper M, Schwarzer G, Sandercock J, Trelle S, Weingart O, Bayliss S, Brunskill S, Djulbegovic B, Benett CL, Langensiepen S, Hyde C, Engert A. Erythropoietin or Darbepoetin for patients with cancer. *Cochrane Database of Systematic Reviews* CD003407. **Management of sepsis in neutropenic cancer patients: 2018 guidelines from the Infectious Diseases Working Party (AGIHO) and Intensive Care Working Party (iCHOP) of the German Society of Hematology and Medical Oncology (DGHO) (2019).** Kochanek M, Schalk E, von Bergweldt-Baildon, Beutel G, Buchheidt D, Hentrich M,

	Henze L, Kiehl M, Liebregts T, von Lillenfeld-Toal M, Classen A, Mellinghoff S, Penack O, Piepel C, Boll B. *Annals of Haematology* 98(5): 1051-1069. URL.:https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6469653/ 1 review: Estcourt, L. J., et al. (2015). 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. *Cochrane Database of Systematic Reviews* 2015(11): CD010983. **National Klinisk Retningslinje: om indication for transfusion med blodkomponenter. [National Clinical Guideline on transfusion using blood components] (2018).** Copenhagen: Sundhedsstyrelsen, Danish Health Authority; Dec, 2018. URL: https://www.sst.dk/da/udgivelser/2018/~/media/6B1034A380B14036A9EECDF3E4482E85.ashx 2 Reviews: i) Carson JL, Stanworth SJ, Roubinian N, Fergusson DA, Triulzi D, Doree C, Hebert PC. Transfusion thresholds and other strategies for guiding allogeneic red blood cell transfusion. *Cochrane Database of Systematic Reviews* 2016, Issue 10. Art. No.: CD002042. DOI: 10.1002/14651858.CD002042.pub4. ii) Estcourt L, Stanworth S, Doree C, Hopewell S, Murphy MF, Tinmouth A, Heddle N. Prophylactic platelet transfusion for prevention of bleeding in patients with haematological disorders after chemotherapy and stem cell transplantation. *Cochrane Database of Systematic Reviews* 2012, Issue 5. Art. No.: CD004269. DOI: 10.1002/14651858.CD004269.pub3 **Patient Blood Management for Neonates and Children Undergoing Cardiac Surgery: 2019 NATA Guidelines**. Faraoni D, Meier J, New HV, Van der Linden PJ, Hunt BJ. *Journal of Cardiothoracic and Vascular Anesthesia,* March 2019. [Epub ahead of print] URL: https://www.sciencedirect.com/science/article/pii/S1053077019302964 1 Review: Wilkinson KL, Brunskill SJ, Doree C, et al. Red cell transfusion management for patients undergoing cardiac surgery for congenital heart disease. *Cochrane Database of Systematic Reviews* 2014:CD009752. **Patient blood management in obstetrics: prevention and treatment of postpartum haemorrhage. A NATA consensus statement (2019)**. Muñoz M, Stensballe J, Ducloy-Bouthors AS, Bonnet MP, De Robertis E, Fornet I, Goffinet F, Hofer S, Holzgreve W, Manrique S, Nizard J, Christory F, Samama CM, Hardy JF. *Blood Transfusion*, 17 112-36. URL: http://www.bloodtransfusion.it/articolosing.aspx?id=001005 1 Review:

	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. *Cochrane Database of Systematic Reviews* 2012, Issue 3. Art. No.: CD005011. DOI: 10.1002/14651858.CD005011.pub4. **Patient Blood Management: Recommendations from the 2018 Frankfurt Consensus Conference (2019)**. Mueller MM, Van Remoortel H, Meybohm P, Aranko K, Aubron C, Burger R, et al. *JAMA*, 321(10):983-997. URL: https://jamanetwork.com/journals/jama/fullarticle/2727453 3 Reviews: i) Carson JL, Stanworth SJ, Alexander JH, et al. Clinical trials evaluating red blood cell transfusion thresholds: an updated systematic review and with additional focus on patients with cardiovascular disease. *American Heart Journal* 2018; 200:96-101. ii) Carson JL, Stanworth SJ, Roubinian N, et al. Transfusion thresholds and other strategies for guiding allogeneic red blood cell transfusion. *Cochrane Database Systematic Reviews* 2016;10:CD002042. iii) Desborough MJR, Colman KS, Prick BW, et al. Effect of restrictive versus liberal red cell transfusion strategies on haemostasis: systematic review and meta-analysis. *Thrombosis Haemostasis* 2017;117(5):889-898. **Periprocedural antithrombotic management for lumbar puncture: Association of British Neurologists clinical guideline (2018).** Dodd KC, Emsley HCA, Desborough MJR, Chhetri SK. *Practical Neurology* 18(6): 436-446. URL.: https://www.ncbi.nlm.nih.gov/pubmed/30154234 1 review: Estcourt LJ, Desborough MJ, Doree C, Hopewell S, Stanworth SJ. Plasma transfusions prior to lumbar punctures and epidural catheters for people with abnormal coagulation. *Cochrane Database of Systematic Reviews,* 2017 (9): CD012497. **Platelet Transfusion for Patients with Cancer: American Society of Clinical Oncology Clinical Practice Guideline Update (2018).** *Journal of Clinical Oncology,* 36(3):283-299. URL: https://www.ncbi.nlm.nih.gov/pubmed/29182495 5 Reviews: i) Creighton GL, Estcourt LJ, Wood EM, et al: A therapeutic-only versus prophylactic platelet transfusion strategy for preventing bleeding in patients with haematological disorders after myelosuppressive chemotherapy or stem cell transplantation. *Cochrane Database of Systematic Reviews* 9:CD010981, 2015. ii) Estcourt LJ, Desborough M, Hopewell S, et al: Comparison of different platelet transfusion thresholds prior

	to insertion of central lines in patients with thrombocytopenia. *Cochrane Database of Systematic Reviews*: CD011771, 2015. iii) Estcourt LJ, Ingram C, Doree C, et al: Use of platelet transfusions prior to lumbar punctures or epidural anaesthesia for the prevention of complications in people with thrombocytopenia. *Cochrane Database of Systematic Reviews* (5):CD011980, 2016. iv) Estcourt LJ, Stanworth SJ, Doree C, et al: 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. *Cochrane Database of Systematic Reviews* 11:CD010983, 2015. v) Butler C, Doree C, Estcourt LJ, et al: Pathogen-reduced platelets for the prevention of bleeding *Cochrane Database of Systematic Reviews* 3:CD009072, 2013. **Society of Interventional Radiology Consensus Guidelines for the Periprocedural Management of Thrombotic and Bleeding Risk in Patients Undergoing Percutaneous Image-Guided Interventions-Part II: Recommendations: Endorsed by the Canadian Association for Interventional Radiology and the Cardiovascular and Interventional Radiological Society of Europe (2019).** Patel IJ, Davidson JC, Hanks SE, Tam AL, Walker TG, Wilkins LR, Sarode R, Weinberg I. *Journal of Vascular and Interventional Radiology,* 30(8): 1168-1184 e1161. URL.: https://www.ncbi.nlm.nih.gov/pubmed/31229333 2 reviews: i)Hall DP, Estcourt LJ, Doree C, Hopewell S, Trivella M, Walsh TS. Plasma transfusions prior to insertion of central lines for people with abnormal coagulation. Cochrane Database of Systematic Reviews 2016; 9:CD011756 ii)Estcourt LJ, Desborough M, Hopewell S, Doree C, Stanworth SJ. Comparison of different platelet transfusion thresholds prior to insertion of central lines in patients with thrombocytopenia. Cochrane Database of Systematic Reviews 2015; 12:CD011771 **The European Guideline on Management of Major Bleeding and Coagulopathy following Trauma: Fifth Edition (2019)**. Spahn DR, Bouillon B, Cerny V, Duranteau J, Filipescu D, Hunt BJ, Komadina R, Maegele M, Nardi G, Riddez L, Samama CM, Vincent JL, Rossaint R. *Critical Care*, 23(1):98. URL: https://ccforum.biomedcentral.com/articles/10.1186/s13054-019-2347-3 5 Reviews: i) Desborough MJ, Oakland K, Brierley C, Bennett S, Doree C, Trivella M, Hopewell S, Stanworth SJ, Estcourt LJ. Desmopressin use for minimising perioperative blood transfusion. *Cochrane Database of Systematic Reviews* 2017, Issue 7. Art. No.: CD001884.

	ii) Desborough MJ, Oakland KA, Landoni G, Crivellari M, 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. Journal of Thrombosis and Haemostatis. 2017;15(2):263–72. 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. *Cochrane Database of Systematic Reviews* 2012, Issue 3. Art. No.: CD005011. iv) McQuilten ZK, Creighton G, Engelbrecht S, Gotmaker R, Brunskill SJ, Murphy MF, Wood EM. Transfusion interventions in critical bleeding requiring massive transfusion: a systematic review. *Transfusion Medicine Reviews*. 2015;29(2):127–37. v) McQuilten ZK, Creighton 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. *Transfusion Medicine Reviews*. 2018; 32(1):6–15. **Tranexamic Acid Use in Total Joint Arthroplasty: The Clinical Practice Guidelines Endorsed by the American Association of Hip and Knee Surgeons, American Society of Regional Anesthesia and Pain Medicine, American Academy of Orthopaedic Surgeons, Hip Society, and Knee Society (2018).** Fillingham YA, Ramkumar DB, Jevsevar DS, Yates AJ, Bini SA, Clarke HD5, Schemitsch E, Johnson RL, Memtsoudis SG, Sayeed SA, Sah AP, Della Valle CJ. *Journal of Arthroplasty*. 2018; 33(10):3065-3069. doi: 10.1016/j.arth.2018.08.002. 1 Review: Hopewell S, Omar O, Hyde C, Yu LM, Doree C, Murphy MF. A systematic review of the effect of red blood cell transfusion on mortality: evidence from large-scale observational studies published between 2006 and 2010. *BMJ Open*, 3 (2013), pp. 1-11. **UK guidelines on the management of iron deficiency in pregnancy (2019)**. Pavord S, Daru J, Prasannan N, Robinson S, Stanworth S, Girling; British Society for Haematology. *British Journal of Haematology*. [Epub ahead of print]. URL: https://onlinelibrary.wiley.com/doi/full/10.1111/bjh.16221 1 Review: Smith GA, Fisher SA, Doree C, Di Angelantonio, Roberts DJ. Oral or parenteral iron supplementation to reduce deferral, iron deficiency and/or anemia in blood donors. *Cochrane Database of Systematic Reviews* 2014, Issue 7. Art. No.: CD009532. DOI: 10.1002/14651858.CD009532.pub2.
Research Tools & Methods	**NIHR Cochrane programme grant [2].** We will be using a form of analysis: network meta-analysis that has not been used by the core group before. All working on the programme grant have attended specific NMA training in Oxford in

	June 2019. We will receive support from both the Cochrane Complex Reviews Unit and Professor Nicky Welton from the University of Bristol in writing about, performing and analysis network meta-analyses. We have started using the software package **Covidence** for our data extraction activities. We have been involved in a methodology focused project: an exemplar prognostic systematic review: Aldin A, Umaloff L, **Estcourt LJ**, Collins G, Moons KGM, Engert A, Kobe C, von Tresckow B, Haque M, Foroutan F, Kreuzberger N, Trivella M, Skoetz N. Interim PET-results for prognosis in adults with Hodgkin lymphoma: a systematic review and meta-analysis of prognostic factor studies. *Cochrane Database of Systematic Reviews* 2019, Issue 9. Art. No.: CD012643. DOI: 10.1002/14651858. CD0012643.pub2.
Research Databases & Models	See section below: **Software & Technical Products**
Intellectual Property & Licensing	Nothing to report. We have talked about this for our electronic libraries, but the only aspect that we could consider would be the database and Evidentia Publishing does not think it is appropriate to apply for intellectual property for the database structure.
Medical Products, Interventions and Clinical Trials	***Clinical Trials*** that have developed from one of our systematic reviews*: • *REVIEW: Granulocytes for treating 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. • *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. • *REVIEW: Anti-fibrinolytics for the prevention of bleeding in patients with haematological malignancie* update of this review was referenced in the updated TREATT [An ongoing, international trial "to evaluate a patients with haematological malignancies] trial documentation [ClinicalTrials.gov Identifier: NCT03136445] Trial currently ongoing.

- *REVIEW: Desmopressin for the treatment of platelet dysfunction and reversal of antiplatelet agents* [2017]: 2 new CLINICAL TRIALS:

(1) DRIVE: a pilot, randomised trial of desmopressin versus placebo prior to procedure in intensive care patients. Awarding Body: NHSBT [ISRCTN12845429]. Trial completed but not published.

(2) 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 1st April 2019. [ClinicalTrials.gov Identifier: NCT03696121]. Trial currently ongoing.

- *REVIEW: Iron supplementation to treat anaemia in adult critical care patients* [2016]: 1 new clinical trial: INtravenous Iron to Treat Anaemia following CriTical Care (INTACT): a randomised feasibility study. [ISRCTN13721808] Protocol for this trial is available as an Epub ahead of print at *Journal of the Intensive Care Society* 2019; https://journals.sagepub.com/doi/10.1177/1751143719870080

***GRANT APPLICATIONs* that have developed from one of our systematic reviews*:**

- *REVIEW: Iron supplementation to treat anaemia in adult critical care patients* [2016]. informed a successful grant application to Human Iron Research Oxford [University of Oxford] for a study of "Erythroferrone in critical illness anaemia: an opportunity for novel mechanistic insights and developing clinical prediction models". Awarded **£13,420.**

- *REVIEWs in maternity [Gaps in the evidence for prevention & treatment of maternal anaemia, 2012]* have informed a successful funding application to NIHR titled: "Primary prevention of maternal ANaemia to avoid preterm Delivery and other Adverse outcomes (PANDA)". Awarded £2.3 million by NIHR in September 2019.

- *REVIEW: Transfusion of fresher versus older red blood cells for all conditions* [2016] informed a successful NIH grant application for an individual patient data meta-analysis: "Clinical Impact of Red Cell Storage Age: Individual Patient Data Meta-Analysis of Four Recent Large Randomized Trials" Grant awarded by NIH in June 2019.

* These being trials and grant applications that the PI's working with the SRI have been involved with.

Artistic & Creative Products	Nothing to report
Software & Technical Products	***Transfusion Evidence Library*** (www.transfusionevidencelibrary.com). As of October 2019, the library contains 9,878 records, of those: 7,720 are RCTs, 2,082 are Systematic Reviews and 76 are Economic studies. We currently have 25 subscribers to TEL (a decrease of 1 from last year when we had 26 subscribers). The subscribers are: 7 national blood services, 6 hospitals, 5 universities, 4 professional societies and 1 each of the following: health care library, health care trust and commercial company. We have gained two new subscribers this year [both from the US] and one institution has not renewed their annual subscription. Royalties we have earnt this year are £10,408.10, although we have received only £7299.62 as £3118.54 was used to cover the cost of migration from Procite to Endnote. Annual maintenance bill = £ 10,000. A link to the Transfusion Evidence Library website link can be found on the following websites: • Nice: https://www.nice.org.uk/about/what-we-do/evidence-services/journals-and-databases • British Blood Transfusion Society: https://www.bbts.org.uk/links/ • Wiley Online Library: https://onlinelibrary.wiley.com/journal/13653148 • NHSBT Library, Evidence Search section https://nhsbloodandtransplant.sharepoint.com/sites/NHSBTLibrary/SitePages/Evidence-Search.aspx?web=1 **TEL usage (taken from Google Analytics data).** Since the beginning of 2019 Transfusion Evidence Library has had 10,595 hits this year from 7399 individual users, a rise in both hits [up 6%, n=595] hits and individual users [up 5%, n= 332] since November 2018. **Transfusion Evidence Library on Twitter*:*** On 23 October 2019 had 1796 followers on Twitter. Tweets are posted about the monthly email alerts and their contents, relevant awareness days, news items that contain content relevant to the content of TEL as well as retweeting tweets from the SRI twitter page and Stem Cell Evidence twitter page. **Transfusion Evidence Alert.** We have 12,000 subscribers to our monthly Transfusion Evidence Alerts. The Geographical breakdown of the monthly alert is as follows: • Europe and UK: 3,750, between 1,000 – 1,300 from the UK. • Asia Pacific: 3,500, including: ANZSBT (Australia / New Zealand Society of Blood Transfusion) and ISTM (Indian Society for Transfusion Medicine) members.

	• North America: 2,750. • Middle East & Africa: 900. • Latin America: 350, • Unassigned: 750. ***Stem Cell Evidence*** *(*using the domain name, www.stemcellevidence.com) was launched in April 2017 and now contains over 5,000 records [a rise from 3,267 records on 1st November 2018]. PICO summaries for Stem Cell Evidence were launched in June 2019 Royalties earnt this year are none as *Stem Cell Evidence* is a 'free at the point of access' database. Annual maintenance bill = £ 25,000 **Stem Cell Evidence usage (taken from Google Analytics data).** Since the beginning of 2019, Stem Cell Evidence has had 2010 hits this year from 1399 individual users. **Stem Cell Evidence on Twitter*:*** On 23 October 2019 had 221 followers on Twitter. Tweets are posted about the monthly email alerts and their contents, relevant awareness days, news items that contain content relevant to the content of TEL as well as retweeting tweets from the SRI twitter page and Stem Cell Evidence twitter page. **Stem Cell Evidence Alert.** We have 963 subscribers to our monthly Stem Cell Evidence Alerts, a rise of 27% since November 2018 [n = 706 alert subscribers in November 2018]. A link to Stem Cell Evidence can be found on the following websites: • BSBMT: http://bsbmt.org/for-healthcare-professionals/ • NHSBT Library, Evidence Search section https://nhsbloodandtransplant.sharepoint.com/sites/NHSBTLibrary/SitePages/Evidence-Search.aspx?web=1 We have promoted Stem Cell Evidence at the National Apheresis Conference in June and the 2nd King's College London Bone Marrow Failure/Aplastic Anaemia Meeting in October 2019.
Spin Outs	Nothing to report
Awards and Recognition	Naomi Gibbs won a Clarendon-Kingsgate scholarship to undertake a PhD at the University of Oxford.

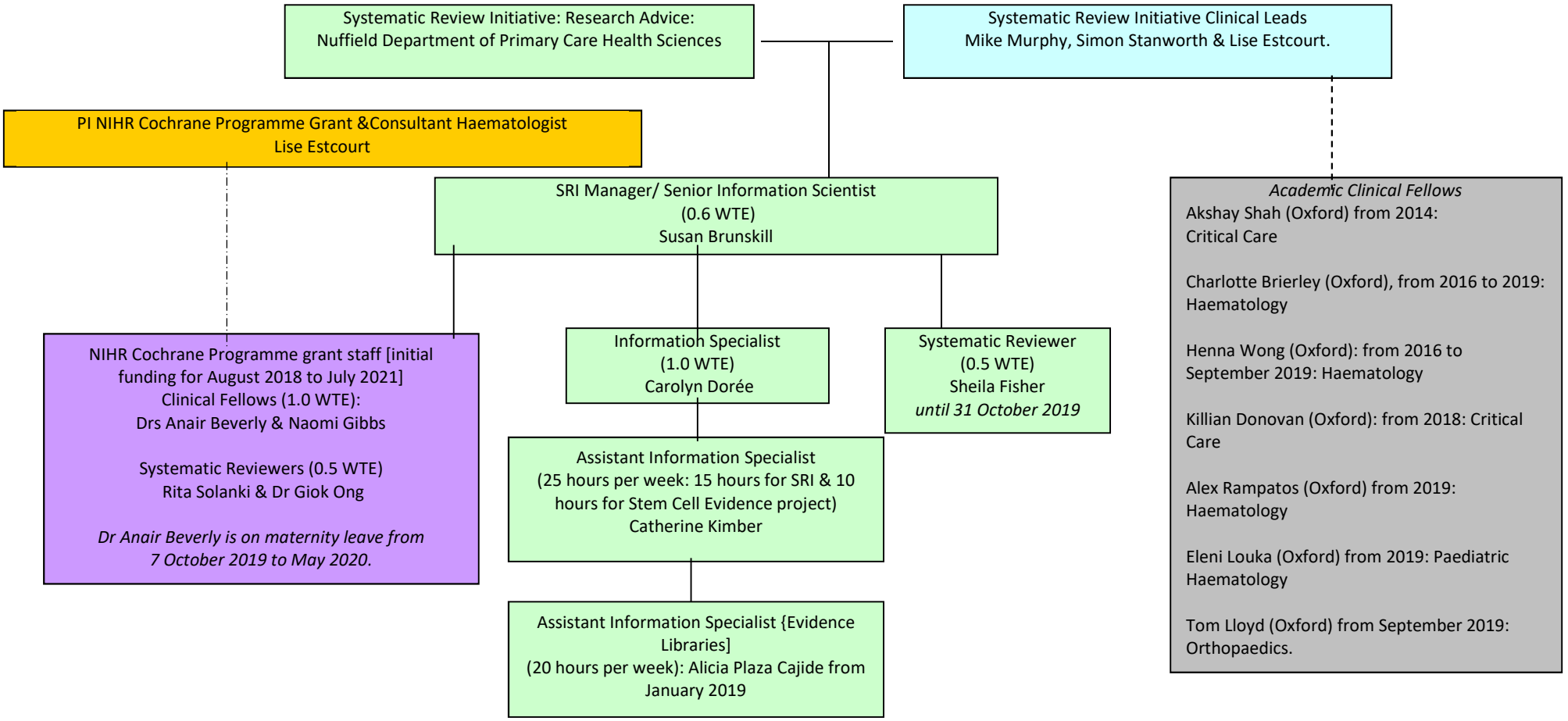
	Mike Murphy has been President of the American Association of Blood Banks [AABB] and Treasurer for the BEST collaborative for the last 12 months. Lise Estcourt has become a Principal Investigator for NHSBT. Akshay Shah has successfully completed his one year *Anaesthesia* trainee editor fellowship which began in August 2018. Akshay Shah has submitted the Cochrane review entitled "*Transfusion of red blood cells stored for shorter versus longer duration for all conditions*" for Royal College of Anaesthetists Maurice P Hudson Prize – outcome awaited. Akshay Shah was invited to be a member of European Society of Intensive Care Medicine Transfusion Guideline Writing Committee (March 2019) for the guideline "Transfusion strategies in non-bleeding critically ill adults: a clinical practice guideline from the European Society of Intensive Care Medicine". The completed guideline is currently under consideration for publication with *Intensive Care Medicine*.
Use of Facilities & Resources	***Resources:*** We use Covidence for all our screening activities and are now using Covidence to undertake data extraction for our Cochrane reviews. We are required to use Covidence for all our Cochrane systematic reviews and have bought a licence which gives us 5 separate, non-Cochrane review screening activities per year. ***Training Received:*** SRI team members have attended the following training activities since 1st November 2018: <u>Susan Brunskill</u> • Attended the inaugural **James Lind Alliance: Community Group** meeting on 12th January 2019; • Attended a 2 day NHSBT workshop on **Manager as Coach** on 23rd and 24th January 2019; • Attended a Cochrane Webinar, **Introduction to new Cochrane Handbook for Systematic Reviews of Interventions** (Version 6) on 29th January 2019; • Attended a Cochrane Webinar, **Practical methods for handling missing summary statistics in meta-analysis of continuous outcome** on 5th February 2019; • Attended two NFP Workshops, '**Bid Writing - the Basics'** and **'Bid Writing – Advanced'** on 11th June 2019.

	Catherine Kimber • Completed online training on search engine optimisation • Completed online training on recording videos using PowerPoint Alicia Plaza-Cajide • Completed the course: **Online Presence: Taking control pop up** during June 2019 Lise Estcourt • Attended the **Cochrane Editorial Meeting** Krakow 1st to 3rd April 2019 • Attended the Cochrane methods meeting in Bristol on ROB2.0 and ROBINS-I , 10th July 2019 • Will attend the NIHR CRSU Training Day for Cochrane Programme Grant holders, 22 November 2019 Rita Solanki • Attended **Cochrane UK & Cochrane Ireland Symposium** 2019, Said Building, Oxford University, 21st March 2019 • Attended the '6th Course on **Network Meta-Analysis'**, Warneford Hospital, Oxford - June 24th – 26th 2019 Giok Ong • Attended **Cochrane UK & Cochrane Ireland Symposium** 2019, Said Building, Oxford University, 21st March 2019 • Attended the '6th Course on **Network Meta-Analysis'**, Warneford Hospital, Oxford - June 24th – 26th 2019 Anair Beverly • Attended the '6th Course on **Network Meta-Analysis'**, Warneford Hospital, Oxford - June 24th – 26th 2019 Naomi Gibbs • Attended the '6th Course on **Network Meta-Analysis'**, Warneford Hospital, Oxford - June 24th – 26th 2019 Akshay Shah • Attended a **Pharmacovigilance workshop** at the Oxford Clinical Trials Unit [OCTRU] on 13 Sep 2019
Other Outputs & Knowledge / Future Steps	The information science workload has remained consistent over the past year with support required for the NIHR Programme Grant network meta-analyses, and for many new and updated SRI systematic reviews. During 2018/19 Carolyn has also given full information science support to the following external projects:

	• BSH Guideline search request (Dr Alwyn Kotze, Consultant Anaesthetist, Leeds): 'The Management of Pre-operative Anaemia '. Individual searches for eight sections of the guideline, January-March 2019. • Systematic Review (Brenton Sanderson, Anaesthesia Research Fellow, Westmead Hospital, Sydney, Australia): 'Massive Transfusion Protocol', February-May 2019. • Cochrane PICO Annotation for the Cochrane Injuries Group – annotating all transfusion-related reviews. (Ongoing) ***Future Steps [please see PAPER I for a fuller description of our objectives and steps for the next 12 months]:*** For our electronic libraries: • Secure funding for Stem Cell Evidence and the Transfusion Evidence Library from April 2020 • Work with NHSBT Procurement to agree the form of waiver/contract that we need to have with Evidentia Publishing for the libraries • Request that links to both libraries are placed on the NHSBT R&D website homepage. • Develop a dissemination strategy for the libraries for 2020: • Include PICO summaries for all TEL records that have appeared in a monthly evidence alert. Achieve this for the March 2020 alert. For our staffing resource: • Apply to the UK Forum in December 2019 for new funding for a 0.5 WTE band 7 Systematic reviewer post. For our systematic reviews: • Complete update 1 of the Cochrane review "Pro-coagulant haemostatic factors for the prevention and treatment of bleeding in people without haemophilia" and the Cochrane review "Transfusion of red blood cells stored for shorter versus longer duration for all conditions" • Complete data extraction and network analysis for NIHR Cochrane Programme Grant review: "Pharmacological interventions for the prevention of bleeding in people undergoing elective hip or knee surgery: a systematic review and network meta-analysis" and "Drugs to reduce bleeding and transfusion in adults undergoing cardiac surgery: a systematic review and network meta-analysis". • Complete the searching and screening for the NIHR Cochrane Programme Grant review "Drugs to reduce bleeding and transfusion in major open vascular or endovascular surgery: a systematic review and network meta-analysis" and Pharmacological interventions for the prevention of bleeding in people undergoing definitive fixation of hip, pelvic and long bone fractures: a systematic review and network meta-analysis". • Develop a protocol, complete the searching and screening and start data extraction for a fifth review in the NIHR Cochrane Programme grant series: "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". Other: • Develop an SRI mini website within the NHSBT external facing website • Implement agreed plan to define SRI priority topic areas for the period 2020-2024.

PAPER C, APPENDIX 1: SRI staff November 2018 to current



Funding Streams

SRI core funding:UK Forum | NHSBT core funding | NHSBT & NIHR funding | NIHR funding | Other funding

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