

Malcolm Needs

CERTIFICATIONS

1973: Junior or student member, IMLT 1976: Associate member, IMLS

1986: Full member, IMLS

1987: Fellow, IMLS (FIMLS, now FIBMS)

Note: Over the years the UK's Institute of Biomedical Science (IBMS) has undergone [several name changes](#).

WORK HISTORY

1973 to ~1978: Junior A Medical Laboratory Technician at the Blood Group Reference Laboratory in London and later became a Junior B Medical Laboratory Technician.

1978 to ~1999: To be trained in Haematology and Hospital-based Blood Transfusion, later moved to Westminster Teaching Hospital, where involved with three major incidents:

- 1981: [Chelsea Barracks bomb](#);
- 1982: [Hyde Park Corner bomb](#);
- 1983: [Harrod's bomb](#), including providing blood cover for the dog handler.

Eventually moved to the Blood Transfusion Laboratory at Mayday University Hospital in Thornton Heath, Surrey, where obtained Fellowship of the (then) Institute of Medical Laboratory Science (IMLS) in 1987, and was awarded the Margaret Kenwright Memorial Award by the London Branch of the IMLS for obtaining the highest mark in the Transfusion Science Special Examination.

- 1989: Involved in dealing with victims of [Purley train crash](#)

Took redundancy from Mayday University Hospital as the result of a rationalisation exercise and went to work in Blood Transfusion at Ealing District General Hospital, where involved in dealing with victims of the

- 1999: [Paddington train crash](#)

After a spell there, briefly worked as a [locum](#) Chief Biomedical Scientist at the, now, [International Blood Group Reference Laboratory](#) in Bristol.

2000 - 2014: Took a position in the Red Cell Immunohaematology (RCI) Department at the National Health Service Blood and Transplant ([NHSBT](#)), Tooting Centre, and became the Reference Service Manager.

August 1, 2014 - October 31, 2016:

Hired for a brand-new post created within RCI, NHSBT as the **Reference Service Manager – Training**, a national post, until retirement. This position was designed to help staff members with Continuing Professional Development and involved the following:

- Writing some 77 *PowerPoint* lectures, many with accompanying *Word* documents

of explanation, where required, and most with a theoretical competency assessment, to show compliance with UKAS competency requirements;

- Delivering selection of these lectures at various NHSBT Centres around the country;
- Sending case studies around the country, followed by detailed answers;
- Sending out suggestions of peer-reviewed papers that may be of interest to any member of the NHSBT Red Cell Immunohaematology staff and those staff members on the Higher Specialist Scientific Training (HSST) course;
- Sending out a selection of points that I felt were important from these papers.

SERVICE TO THE PROFESSION

- Twice served on the National Council of the British Blood Transfusion Society (BBTS);
 - Served variously as Chair of the Special Interest Groups, Chair of the Regional Representatives and was, for some years, Editor of the *BBTS Newsletter*, and so served on the Publicity and Publications Committee.
- Organized , or helped to organise numerous one-day symposia, chairing some sessions and speaking at others;
- Served as the external examiner on many occasions for State Registration of Biomedical Scientists;
- Presently a member of the IBMS Transfusion Science Advisory Panel;
- Chief Examiner in Transfusion Science for the IBMS 2012-2017;
- Presently serve on the Medicines and Healthcare Products Regulatory Authority (MHRA) Haemovigilance Expert Panel for the IBMS;
- On the Editorial Board of *Africa Sanguine*, the official journal of the Africa Society for Blood Transfusion;
- Acted as a peer reviewer for *Transfusion*, *British Journal of Haematology* and for *Transfusion Medicine*;
- In June 2013, appointed as a member of the British Council for Standards in Haematology (BCSH) Transfusion Task Force, which oversees and writes their Blood Transfusion Guidelines;
- Nov, 2016, appointed the IBMS representative on the UK Transfusion Laboratory Collaborative.

PUBLICATIONS (1987-2016)

Journals

- **Needs ME**, McCarthy DM, Barrett J. ABH and Lewis antigen and antibody expression after bone marrow transplantation. *Acta Haematology* 1987; 78: 13-16.
- Win N, Madan B, Harrison C, **Needs M**. Management of pregnancy complicated by anti-Dib. *Transfusion* 2003; 43: 1642.
- Win N, Yeghen T, **Needs M**, Chen F, Okpala I. Use of intravenous immunoglobulin and intravenous methylprednisolone in hyperhaemolysis syndrome in sickle cell disease. *Hematology* 2004; 9: 433-436.
- Needs M. Editor. The London and South East Joint Technical Advisory Groups' Transfusion Training Committee's Educational CD-ROM. 1st Edition, 2004, and wrote 11 of the 27 lectures.
- Win N, Amess P, **Needs M**, Hewitt PE. Use of red cells preserved in extended storage media for exchange transfusion in anti-k haemolytic disease of the newborn. *Transfusion Medicine* 2005; 15: 157-160.

- Win N, **Needs M**. Anti-Cra, pregnancy and transfusion support. *Immunohematology* 2006; 32: 203-204 (letter).
- Win N, Tiwari D, Keevil V, **Needs M**, Lakhani A. Mixed-type autoimmune haemolytic anaemia: Unusual cases and a case associated with splenic T cell angioimmunoblastic non-Hodgkin's lymphoma. *Haematology* 2007; 12: 159-162.
- Win N, **Needs M**, Tillyer L. Management of pregnancy complicated by anti-hrB/anti-HrB. *Immunohematology* 2007; 23: 143-145.
- Reesink HW, Engelfriet CP, Schennach H, Gassner C, Wendel S, Fontão-Wendel R, de Brito MA, Sistonen P, Matilainen J, Peyrard T, Pham BN, Rouger P, Le Pennec PY, Flegel WA, von Zabern I, Lin CK, Tsoi WC, Hoffer I, Barotina-Toth K, Joshi SR, Vasantha K, Yahalom V, Asher O, Levene C, Villa MA, Revelli N, Greppi N, Marconi M, Tani Y, Folman CC, de Haas M, Koopman MMW, Beckers E, Gounder DS, Flanagan P, Wall L, Aranburu Urtasun E, Hustinx H, Niederhauser C, Massey E, Gray A, **Needs M**, Daniels G, Callaghan T, Flickinger C, Nance SJ, Meny GM. International Forum on Donors With a Rare Pheno (Geno) Type. *Vox Sang* 2008; 95: 236-253.
- Barnett N, Nightingale A, Maggs T, **Needs M**, Williams E, Curran D, Mamode N. High anti-A titres may not preclude ABO-incompatible renal transplantation: an autoantibody could be the culprit. *Nephrol Dial Transplant* 2010; 25: 3794-3796.
- Win N, **Needs M**, Rahman S, Gold P, Ward S. An unusual case of an acute haemolytic transfusion reaction caused by auto-anti-I. *Immunohematology* 2011; 27 (3): 101-103.
- Win N, Lee E, **Needs M**, Chia L-W, Stasi R. Measurement of macrophage marker in hyperhaemolytic transfusion reaction: a case report. *Transfusion Medicine* 2012; 22: 137-141.
- Cvejic A, Haer-Wigman L, Stephens JC, Kostadima M, Smethurst PA, Frontini M, van den Akker E, Bertone P, Bielczyk E, Farrow S, Fehrmann RSN, Gray A, de Haas M, Haver VG, Jordan G, Karjalainen J, Kerstens HHD, Kiddle G, Lloyd-Jones H, **Needs M**, Poole J, ait Soussan A, Rendon A, Rieneck K, Sambrook JG, Schepers H, Sillje HHW, Sipos B, Swinkels D, Tamuri AU, verweij N, Watkins NA, Westra H-J, Stemple D, Franke L, Soranzo N, Stunnenberg HG, Goldman N, van der Harst P, van der Schoot CE, Ouwehand WH, Albers CA. SMIM1 underlies the Vel blood group and influences red blood cell traits. *Nature Genetics* 2013 doi: 10.1038/ng.2603.
- Win N, Lee E, **Needs M**, Homeida S, Stasi R. Profound sustained reticulocytopenia and anaemia in an adult patient with sickle cell disease. *Transfusion Medicine* 2014; 24: 418-420. doi: 10.1111/tme.12168.
- White J, Qureshi H, Massey E, **Needs M**, Byrne G, Daniels G, Allard S and British Committee for Standards in Haematology. Guidelines for blood grouping and red cell antibody testing in pregnancy. *Transfusion Medicine* 2016; 26: 246-263. doi: 10.1111/tme.12299.

Book Chapters

- **Needs ME**. Chapter entitled "Human erythrocyte antigens or blood groups" in *Fundamentals of Biomedical Science, Transfusion and Transplantation Science*, edited by Robin Knight for the IBMS. 1st Edition, Oxford University Press 2013 (ISBN 978-0-19-953328-2, pages 19-44).

Book Reviews

- Over the years wrote many book reviews published in the *BBTS CPD News* (now *Bloodlines*), *The British Journal of Biomedical Science*, and *The Biomedical Scientist*.

Presentations

- Delivered dozens of talks at workshops and conferences within the UK.

Overseas Presentations

- Las Vegas, Nevada (Joint meeting of the South Central Association of Blood Banks and the California Blood Bank Society, 2 June 2015)
 - “Comparison of antibody and antigen identification techniques”
- Providence, Rhode Island (ASCLS Annual Convention , 28 April 2015)
 - “Transfusion in a Multi-ethnic Population”
- Cressier , Switzerland (BioRad Transfusion Science Course, 16-19 March 2015)
 - “ABO Typing Discrepancies: difficulties and clinical situations”
 - “Antibody Screening and Identification: problem solving”
 - “Electronic versus complete cross-match”
 - “King Henry VIII and McLeod Syndrome”
- Beijing and Chanchung, Peoples’ Republic of China (2005):
 - “Guidelines used in British blood transfusion laboratories”
 - “The situation and experience of red cell immunohaematology in the NBS”
 - “Laboratory investigation of autoimmune haemolytic anaemia”

Poster Presentations/Abstracts (1988-2016)

- Zuiable A, **Needs ME**, Aboud H, McCarthy D, Bowles RL, Barrett AJ, Treleven JG. Tolerance to ABH antigens after allogeneic BMT from ABO mismatched donors. *European Bone Marrow Transplantation* 1988.
- MacRate EB, Carrington T, De Lord C, **Needs M**, Win N. Anti-E Detectable by IAG and Not by Enzyme? How Confusing! *Transfusion Medicine* 2001; **11 (Suppl. 1)**: 30.
- Win N, Madan B, Harrison C, **Needs M**. Anti-Di^b Not Causing Haemolytic Disease of the Newborn (HDN). *Transfusion Medicine* 2002; **12 (Suppl. 1)**: 28.
- Win N, Amess P, **Needs M**, Hewitt P. Anti-k. HDN and Impaired Erythropoiesis. *Transfusion Medicine* 2003; **13 (Suppl. 1)**: 27.
- **Needs M**, Banks J, Win N, Poole J, Reid M, Hue-Royd K. A Case of Anti-Hy in a Sickle Patient with an Unusual Dombrock Phenotype. *Transfusion Medicine* 2003; **13 (Suppl. 1)**: 33.
- Carter L, Banks J, Poole J, Wilkes A, **Needs M**, Win N. An Unusual Case of Anti-Ge3. *Vox Sanguinis* 2004; **87 (Suppl. 3)**; 75.
- Rahman S, **Needs M**. Blood Transfusion Practices in a Developing Country (4 Years On) . *Vox Sanguinis* 2004; **87 (Suppl. 3)**; 47.
- Gray A, **Needs M**, Win N. 25 Years of Rare Donor Screening at NBS Tooting Centre. *Vox Sanguinis* 2004; **87 (Suppl. 3)**; 75.
- **Needs M**. Current Approaches to Antibody Investigations. *Transfusion Medicine* 2005; **15 (Suppl. 1)**: 23.
- Win N, Tiwari D, Keevil D, **Needs M**. Mixed-type Autoimmune Haemolytic Anaemia (AIHA). *Transfusion Medicine* 2006; **16 (Suppl. 1)**: 38.
- Win N, **Needs M**, Tillyer L. Management of Pregnancy Complicated by Anti-hr^B and/or Anti-Hr^B. *Transfusion Medicine* 2006; **16 (Suppl. 1)**: 39.
- Win N, **Needs M**. Anti-Cr^a, Pregnancy and Transfusion Support. *Transfusion Medicine* 2006; **16 (Suppl. 1)**: 41.
- **Needs M**, Gray A, Tee P, Mitchell S, Win N. The Provision of Blood for a Surgical Case with Anti-Co^a and Anti-Do^a. *Transfusion Medicine* 2007; **17 (Suppl. 1)**: 40.

- **Needs M**, Poole J, Tilley L, Stern S, Preddy I, Win N. Stimulation of Anti-D in Pregnancy by a Weak D Type 3. *Transfusion Medicine* 2007; **17 (Suppl. 1)**: 40.
- **Needs M**, Poole J, Warke N, De Lord C, MacRate E, Win N. A Case of Anti-Er^a in Pregnancy. *Transfusion Medicine* 2007; **17 (Suppl. 1)**: 41.
- Tilley L, Poole J, Bullock T, **Needs M**, Bromilow I, Skidmore I, Daniels G. Four RhD Variants Caused by Novel *RhD* Mutations. *Transfusion Medicine* 2007; **17 (Suppl. 1)**: 41.
- **Needs M**, Poole J, Tilley L, Bullock T, Win N. Alloanti-D Production in an Individual with a RhD Mutation (S103P) Previously Unassociated with Partial D. *Transfusion Medicine* 2008; **18 (Suppl. 2)**: 35.
- Win N, Robinson M, **Needs M**. Delayed Haemolytic Transfusion Reaction (DHTR) Due to Anti-Jk^a Detected by Enzyme Techniques. *Transfusion Medicine* 2008; **18 (Suppl. 2)**: 34.
- Win N, **Needs M**, Mir N. Management of Severe Anaemia in Pregnancy (Sickle Cell Disease). *Transfusion Medicine* 2008; **18 (Suppl. 2)**: 44.
- Win N, Williams E, **Needs M**, Hendry L. Auto-anti-Jka in Evans' Syndrome. *Transfusion Medicine* 2008; **18 (Suppl. 2)**: 34.
- **Needs ME**, Tilley L, Poole J, Mathlouthi R, Marsh J, Ross K, Win N. A Novel *RHCE* Allele Resulting in a D-- Phenotype. *Transfusion Medicine* 2009; **19 (Suppl. 1)**: 24.
- Regan F, Sharif B, **Needs M**, Gray A, Parvin-Cooper L. Is the NHS Blood and Transplant detecting enough rare blood group donors to prevent shortages for patients in need? *Transfusion Medicine* 2010; **20 (Suppl. 1)**: 34.
- Karamatic Crew V, Poole J, Marais I, **Needs M**, Wiles D, Daniels G. DOLG, a novel high incidence antigen in the Dombrock Blood Group System. *Vox Sanguinis* 2011; **101 (Suppl. 1)**: 263.
- Karamatic Crew V, Poole J, Thornton N, Gray A, **Needs M**, Daniels G. A novel *GCNT2* allele with two unique heterozygous mutations found in a donor with the I weak I negative phenotype. *Transfusion medicine* 2012; **22 (Suppl. 1)**: 53.
- **Needs M**, Grimsley S, Poole J, Rudd S. An unusual *RHCE* compound heterozygote giving rise to lack of hr^s and production of anti-hr^s in pregnancy. *Transfusion Medicine* 2012; **22 (Suppl. 1)**: 53.
- **Needs M**, Grimsley S, Finning K, Poole J, Miller D, Daniels G. A case of phenotype/genotype discrepancy explained by the complex genetic background of the MNSs blood group system. *Transfusion Medicine* 2012; **22 (Suppl. 1)**: 54-55.
- **Needs ME**, Win N. Further Evidence for The Clinical Significance of Anti-Jr^a. *Vox Sanguinis* 2015; **109 (Suppl. 1)**: P-484 (page 252).

Lectures, Teaching, etc. (2005-2016)

Besides many talks at conferences, regularly give educational lectures as follows:

- BSc and MSc Courses at North East Surrey College of Technology, Brighton University; The University of Surrey, Kingston University; and The University of Westminster
- "Human Blood Groups" on the Haematology for Chemical Pathologists Course at The University of Westminster
- "Laboratory investigation of autoimmune haemolytic anaemia" and "Clinically significant antibodies" on the *BBTS* Advanced Specialist Course
- Various subjects on the Royal College of Pathology (RCPATH) Essential (Rh and Other Blood Group Systems) and Intermediate (ABO and Rh Blood Group Systems) Transfusion Medicine Courses, prior to the candidates taking Membership examinations