

## **Curriculum Vitae**

### **Personal Details**

Name: Dr. Anubhav Gupta

Affiliation: Associate Professor, Department of Transfusion Medicine All India Institute of Medical

Sciences (AIIMS), Jodhpur, Rajasthan

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Date of Birth: 13th August 1986

**Academic Qualification**:

MBBS: Acharya Shri Chander College of Medical Sciences, Jammu, J& K

MD Transfusion Medicine, PGIMER, Chandigarh

Senior Residency- SGPGI Lucknow

Senior Residency- ABVIMS & RMLH, New Delhi

### **Publications**

### **Original Articles**

- 1. Bava D, Panda S, Jain R, Mittal S, **Gupta A\***, Mandal S, Bajpayee A, Khan A. Therapeutic Plasma Exchange in Autoimmune Neurological Conditions: A Clinical Outcome and Safety Profile Analysis. Therapeutic Apher & Dia. 2024;pre-print
- 2. **Gupta A\***, Sharma A, Jha DK. Overcoming Obstacles STEP By STEP: A Comprehensive Review of Challenges and Strategies in Implementing Hospital Management Information Systems in India, PREPRINT [https://doi.org/10.21203/rs.3.rs-4631703/v1]
- 3. Jain R, **Gupta A**, Bava D, Patil V, Sinha P, Garg S, et al. Time-deferred consequences: A deep dive into delayed adverse reactions among whole blood donors. Asian J Transfus Sci 2024: 10.4103/ajts.ajts.ajts\_81\_24
- 4. Anne PB, Gupta A, Misra S, Sharma SK, Garg MK, Bajpayee A, Bundas S, Bohra M, Asirvatham V.

- Economic Evaluation of Nucleic Acid Testing for Screening of Blood Donations for Thalassemia Patients (ECONAT) in Western India. Indian Journal of Hematology and Blood Transfusion. 2023 Apr;39(2):317-24
- 5. Asirvatham V, **Gupta A**, Bava D, Tripathi PP, Mittal S. Challenges in organising blood donation camps at remote military base and its impact on blood component quality: A unique helicopter-based whole blood transport experience. Transfusion and Apheresis Science. 2024 Aug 1;63(4):103955.
- 6. Pokhrel A, Chaudhary J, Sachdeva P, **Gupta A** et al. Trends of infectious disease markers among healthy blood donors in northern India: A ten year study. Transfus Apher Sci. 2022;Oct 1;61(5):103442.
- 7. Parashar R, Gupta N, Bajpayee A, **Gupta A\***. Evaluation of Clinical Transfusion Practices in Neonatal Intensive Care Unit. Biomed J Sci & Tech Res. 2022;41(4):32953 8
- 8. Kaushik R, **Gupta A**, Thakur D, et al. Neutrophil to Lymphocyte Ratio: A Simple, Quick, and Independent Predictor of Severity and Outcome in COVID-19 Disease. J Indian Acad Clin Med. 2022;Jul 1;23.
- 9. Jain R, Sachdev S, Marwaha N, **Gupta A**. Assessment of hemoglobin content of packed red cells: A prospective study on hemoglobin content variation due to donor, collection, and processing-related factors. Is it time to label each unit with hemoglobin content?. Glob J Transfus Med. 2022;Jan 1;7(1)
- 10. Agarwal A, Mukherjee A, Kumar G, et al. Convalescent plasma in the management of moderate covid-19 in adults in India: open label phase II multicentre randomised controlled trial(PLACID Trial). BMJ. 2020;Oct 22;371
- 11. Pokhrel A, Chaudhary K, Sachdeva P, et al. Activity Wise Unit Cost of Blood Components in a Tertiary Care Hospital Blood Bank for the Year 2018. Indian J Hematol Blood Transfus. 2020;Apr;36:368-73.
- 12. **Gupta A**, Dhawan HK, Jain R, Sharma RR, Kaushal V, Singh A, Marwaha N. Development and validation of an indigenous questionnaire for assessing clinician's knowledge towards transfusion medicine and bedside transfusion practices. Transfusion Medicine. 2025 Feb 16.
- 13. Bava D, Panda S, Jain R, Mittal S, <u>Gupta A\*</u>, Khan A, Mandal S, Bajpayee A. Therapeutic plasma exchange in autoimmune neurological disorders: A comprehensive evaluation of clinical outcomes, safety, and long-term disability using the modified Rankin scale. Therapeutic Apheresis and Dialysis. 2025 Feb;29(1):114-22.
- 14. Garg S, Kamra HT, Kumar R, Jain R, <u>Gupta A</u>. Seroreactivity and response rates among whole blood donors: Enhancing safety and counseling practices for future improvement. Asian Journal of Transfusion Science. 2025:10-4103.
- 15. **Gupta A**, Dhawan HK, Jain R, Sharma RR, Kaushal V, Singh A, Marwaha N. Enhancing clinical insight: Implementing validated questionnaires for comprehensive assessment of clinician expertise in transfusion medicine practices. Transfusion and Apheresis Science. 2024 Dec 1;63(6):104005.
- 16. Gupta A, Mishra S, Jain R. Blood in hand-Who is more responsible? Asian Journal of Transfusion

Science.:10-4103.

17. Jain R, <u>Gupta A</u>, Bava D, Patil V, Sinha P, Garg S, Mishra S, Jain S. Time-deferred consequences: A deep dive into delayed adverse reactions among whole blood donors. Asian Journal of Transfusion Science. 2024 Aug 28:10-4103.

### **Case reports & Case Series**

- 1. Bava D, Akhilesh KP, **Gupta A**, Mandal S, Bajpayee A, Gopalakrishnan M, Khan MA. Redefining the role of therapeutic plasma exchange in complications of Echis carinatus sochureki envenomation refractory to anti-snake venom: A case series. Asian Journal of Transfusion Science. 2023 Jul 1;17(2):295-300.
- 2. Kumar A, Didel S, Khera D, **Gupta A** et al. Paroxysmal cold hemoglobinuria in a 7 -year -old male child -Was it really cold induced? A diagnostic and management dilemma. Pediatr Hematol Oncol J. 2021;Dec 1;6(4):216 9
- 3. **Gupta A**, Chaudhary K, Asati S, Kakkar B. Anti-A. Immunohematology. 2021;37(2):69-71.
- 4. Sheetal A, Ruby S, Dhirendra PS, **Anubhav G**, Devki N. Direct antibody test negative autoimmune hemolytic anemia with pulmonary tuberculosis: A diagnostic challenge. Asian Journal of Transfusion Science. 2022 Jul 1;16(2):280-2.
- 5. **Gupta A**, Chaudhary K, Bhatta A, Swain B, Prasad H, Kakkar B, Asati S. Role of Therapeutic Plasma Exchange in Resolution of Hyperhemolysis in a Patient Living with HIV/AIDS (PLHA) Diagnosed with Paroxysmal Cold Haemoglobinuria: A Case Report". Indian Journal of Hematology and Blood Transfusion. 2021 Apr;37:318-23.

## Correspondence

- 1. **Gupta A**, Jain R. Is minimizing iatrogenic blood loss the next frontier in transfusion medicinea?. Transfusion and Apheresis Science. 2024 Jun 1;63(3).
- 2. Parashar R, Gupta N, Bajpayee A, Manoj A, **Gupta A**. Can Restrictive Approach in Neonatal Transfusion Justify the Clinical Outcome?. Indian Journal of Pediatrics. 2021 Nov 18:1-.
- 3. **Gupta, A.**, Chaudhary, K., Pokhrel, A. *et al.* Large Fibrinous Coagulum in the Platelet Bag: A Hint Towards Bacterial Contamination. *Indian J Hematol Blood Transfus* **37**, 337–338 (2021). <a href="https://doi.org/10.1007/s12288-020-01353-1">https://doi.org/10.1007/s12288-020-01353-1</a>
- 4. Keri VC, Kodan P, **Gupta A**, Jorwal P. Needle stick injury from a COVID-19 patient—fear it or forget it?. Journal of Bioethical Inquiry. 2021 Sep;18:377-8.
- 5. Bava D, **Gupta A**, Mandal S, Bajpayee A, Didel S. Does severe anemia necessitate red cell transfusion before therapeutic leukocytapheresis in patients with hyperleukocytosis and suspected tumor lysis syndrome? Addressing a transfusion decision dilemma. Asian Journal of Transfusion Science.:10-4103.

## Abstracts

- Singh p, Bajpayee A, Gupta A, Anne PB, Asirvatham V. Patient blood management in surgical patientsan experience from a developing country. Inanesthesia and analgesia 2022 sep 1 (vol. 135, no. 3 s\_ suppl, pp. 22-22). Two commerce sq, 2001 market st, philadelphia, pa 19103 usa: lippincott williams & wilkins.
- 2. Anne pb, Bajpayee A, Gupta A, Singh P, Bundas S. Patient blood management in obstetric patients-a multicentric cross sectional study to identify areas for intervention in a developing country. Inanesthesia and analgesia 2022 sep 1 (vol. 135, no. 3 s\_ suppl, pp. 67-67). Two commerce sq, 2001 market st, philadelphia, pa 19103 usa: lippincott williams & wilkins.
- 3. Bedside Transfusion Tractices. Still a difficult terrain. A gupta, hk dhawan, rr sharma, n marwaha, a singh, v koushal, 2018 annual meeting

### Minireview

1. Mittal S, Muthukumaravel PJ, Tripathi PP, **Gupta A**, Mandal S, Sharma SK, et al. Promoting and creating feel-good positive experience among voluntary blood donors: An eight-step guide. Asian J Transfus Sci 2024 doi: 10.4103/ajts.ajts\_225\_23

### Grants

# Extramural (Funded)

1. Research study on Patient Blood Management in Rajasthan State- Co Investigator

## **Intramural (funded)**

- 1. Assessing the prevalence of platelet alloimmunization in Haemato-Oncology Patients, AIIMS Jodhpur-Principle Investigator
- Association of HLA class I genotype with carbamazepine/oxcarbazepine and lamotrigine inducedcutaneous adverse reactions among pediatric neurology patients in Rajasthan, AIIMS Jodhpur-Principle Investigator
- 3. Role of regulatory T-cells (Tregs) monitoring with Complement-dependent cytotoxicity and Flow-cytometric crossmatch in ABO-compatible renal transplant recipients: A prospective cross-sectional study- Co Investigator
- 4. Clinical Efficacy of Autologous Platelet-Rich Plasma (PRP) in Enhancing Wound Healing Following Cesarean Section-Co Investigator, **Ongoing**
- 5. Double-blind, randomized, placebo-controlled study evaluating the use of platelet-rich plasma therapy (PRP) for acute ankle sprains-Co Investigator, **Ongoing**

### Nonfunded

1. Therapeutic Plasma Exchange in Neurological Disorders: A Tertiary Care Blood Center Experience from North India, AIIMS Jodhpur

- 2. Testing and improvement of Artificial Intelligence (AI) that can identify medical codes from handwritten medical records for cardiac intervention cases- Under IEC
- 3. Estimating Turn Around Time in Blood Transfusion Services

# **Book Chapters**

- 1. Transfusion Nurse Module- 6 modules
- 2. Haematology Pearls-1
- 3. Directorate General of Health Services (MoHFW): Resource person, national guidelines on patient-blood safety.
- 4. Emergency Hematology Manual: Authored two chapters, under process

## **Workshops/Conferences Organized**

- 1. Learn Basics in Immunohematology- CME cum workshop, E-Classroom, 30<sup>th</sup> March 2024
- Joint Secretory -1<sup>st</sup> International Laboratory Week, Organized by Department of Biochemistry,
  Department of Microbiology, Department of Pathology, Department of Transfusion Medicine-22<sup>nd</sup>
   28<sup>th</sup> April, 2023, Organized QUIZ master for Laboratory Technicians, Judge in Case presentation
  by residents
- Joint Secretory -2<sup>nd</sup> International Laboratory Week, Organized by Department of Biochemistry, ,
   Department of Microbiology, Department of Pathology, Department of Transfusion Medicine -22<sup>nd</sup>
   28<sup>th</sup> April, 2024, Organized QUIZ master for Laboratory Technicians, Judge in Case presentation by residents
- 4. Rajasthan State AIDS Control Society- CME cum Public Lecture on Rationale Use of Blood- 30<sup>th</sup> March, 2022
- 5. Three Day seminar on Best Bedside Transfusion Practices- 7<sup>th</sup> 9<sup>th</sup> August, 2023
- 6. Co-Ordinator-8th Midterm PHO CME 2023

# **Conference Proceedings**

- Indian Society of Transfusion Medicine, Annual Conference, PGIMER Chandigarh, 2<sup>nd</sup>
   November-5<sup>th</sup> November 2023
- 8th Midterm PHO CME 21st to 23rd July, 2023, AIIMS Jodhpur
- 6th Hematology update, 10<sup>th</sup> -11<sup>th</sup> February 2024, AIIMS Jodhpur
- 3rd Annual Pediatric Kidney meet An IPNA endorsed AIIMS Jodhpur Pediatric Nephrology, LT2, AIIMS Jodhpur
- Apheresis workshop-Know your cell separator-Indian Society of Transfusion Medicine,
   Annual Conference, PGIMER Chandigarh, 2<sup>nd</sup> November-5<sup>th</sup> November 2023

- Transfusion support in Thalassemia- 8th Midterm PHO CME 21st to 23rd July, 2023, AIIMS Jodhpur
- Indian Society of Transfusion Medicine, Annual Conference, MGM Indore, 22<sup>nd</sup> October-24<sup>th</sup>
  October 2022

#### **Sessions Chaired:**

- Advancements in Immunohaematology. [Learn Basics in Immunohematology- CME cum workshop], AIIMS Jodhpur, E-Classroom, 30th March 2024
- How do I approach Complex Immunohematology cases (case based clinical scenarios). [Learn Basics in Immunohematology- CME cum workshop], AIIMS Jodhpur, E-Classroom, 30th March 2024
- Transfusion in Paediatric Practices and Haemovigilance- [8th Midterm PHO CME 2023], LT2,
   AIIMS Jodhpur
- Atypical HUS and Genetics in renal disorders. [3rd Annual Pediatric Kidney meet An IPNA endorsed AIIMS Jodhpur Pediatric Nephrology], LT2, AIIMS Jodhpur
- Indian Conference Medical Innovation (ICMI 2025) Co-Chair & Organising Committee.
- Co-Coordinator, IIT Delhi-led Consortium: Establishing Centre of Excellence in AI for Healthcare at AIIMS Jodhpur.

### **Invited Lectures:**

- MoHFW & DGHS- Training of Counsellors-Ranchi, Jharkhand, 17th -19th March 2024
- Know your cell separator-Indian Society of Transfusion Medicine, Annual Conference, PGIMER Chandigarh, 2nd November-5th November 2023
- Enzymes & Chemicals in Immunohamatology- Indian Society of Transfusion Medicine, Annual Conference, MGM Indore, 22nd October-24th October 2022
- CME on Advancements in Apheresis- JLN Medical College, Ajmer-2022
- Transfusion reactions in children-8th Midterm PHO CME 21st to 23rd July, 2023, AIIMS Jodhpur
- Basics in Blood Grouping- 6th Hematology update, 10th -11th February 2024, AIIMS Jodhpur
- Artificial Intelligence in Healthcare- Residents & Interns
- AI & HMIS integration in AIIMS Jodhpur-Introductory Lecture
- Seminar on Massive Transfusion Protocol in Trauma Patients- Department of Trauma & Emergency
- Multiple Integrated & UNCLE seminars with different departments
- Introductory lecture on Blood Component Therapy, Residents & Interns

# Symposium Speaker:

Clinical Transfusion Working Party Business Meeting Gothenburg, virtual, 17th June, 2023

ISBT Clinical Transfusion Working Party Meeting, virtual, 27th December, 2023

### Other Activities:

- Community outreach programs, leading motivational activities for Promoting Voluntary Blood Donation & awareness-
- Celebration 14th June 2021,2022, 2023, 2024- World Blood Donor Day
- Celebration 1st October 2021, 2023, 2024- Nation Voluntary Blood Donation Day
- "Nukkad Natak" Myths about Blood Donation, Skit on Rational Use of Blood- 30th March 2022
- National Youth Day-12th January 2024
- Co-Coordinator-IIT, Delhi lead consortium for setting up Center of Excellence (CoE) in AI for Healthcare-AIIMS Jodhpur
- Customization & Implementation of Blood Bank Management System
- Implementation of CPOE

## **Awards and Recognitions:**

- Harold Gunson Fellowship, International Society of Blood Transfusion, 2021
- Certificate course in Liver Transplant, Institute of Liver and Biliary Sciences (ILBS), Delhi, 2022

# **Professional Memberships**

- Member of International Society of Blood Transfusion-ISBT
- Member of working party (Clinical Transfusion, Cellular Therapy) in International Society of Blood Transfusion- ISBT
- Member Indian Society of Transfusion Medicine- ISTM
- Member Indian Society of Blood Transfusion & Immunohematology
- Member Asian Association of Transfusion Medicine-AATM

# Recognition as thesis supervisor

- a. Semi-Quantification And Subclass Analysis Of Red Cell Antibodies And Its Association With Hemolytic Disease Of Fetus And Newborn- **Guide**
- Assessment of the effect of donor characteristics on clinical outcome in neonatal transfusion recipients –
   CO-Guide
- c. Comparison between Conventional Coagulation Assay vs ROTEM Guided Massive Transfusion Protocols
  in Trauma patients with massive hemorrhage in a Tertiary Care Hospital in Western Rajasthan"- COGuide
- d. Characterisation, formulation and validation of in-house antibody cell panel and its comparison with commercial panel- **CO-Guide**

- e. Study on phenotyping autologous red cells, from transfused thalassemic patients and in-vitro-simulations, by differential lysis methods- **CO-Guide**
- f. Study on in vitro characterization of Neocytes (young RBCs) in cold chain maintained and cold chain interrupted processing and storage of Buffy Coat- **CO-Guide**
- g. Monitoring and management of donors deferred due to low haemoglobin and high blood pressure; a quality improvement study- **CO-Guide**

# **Contribution towards department**

## **Apheresis**

- Red Cell Exchange for sickle cell crisis and severe cerebral malaria
- Leucocytapheresis for AML/ALL patients
- Therapeutic plateletpheresis for essential thrombocythemia
- Granulocytapheresis for neutropenic patients
- Strengthened Therapeutic Exchange services:

# **Immunohematology Services:**

- Warm and cold AIHA workup to identify alloantibodies in recently transfused patients
- Advanced immunohematology workup to identify multiple antibodies, high frequency antigens, and resolve incompatible crossmatches

# **Donor related services: Community Outreach Program**

- Promotional activities for voluntary blood donation awareness
- Donor health awareness

## **Clinical Transfusion**- Strengthened clinical transfusion services

### **Transfusion Services:**

- Formula-based and phenotype-matched transfusion for thalassemia patients
- Pooled buffy coat transfusion for neutropenic hematology-oncology patients
- Pooled random donor platelets as a substitute for single donor apheresis platelets

## **Education and Training:**

- Bedside transfusion practice classes for clinical residents and nursing officers
- Undergraduate and postgraduate teaching, including integrated & UNCLE teaching
- Departmental training and evaluation of technicians
- Thesis supervision (1 as guide, 6 as co-guide)

# **Process Improvements:**

- Implemented 100% paperless documentation through HMIS
- Initiated CPOE (Computerized Provider Order Entry) 1st in New AIIMS

- Piloted dedicated voluntary blood donor pool for multi-transfused patients
- Piloted inventory management based on PRBC hemoglobin for thalassemia patients (PRBC unit as Dose)

## **Contribution to Institute**

### **Administrative Experience**

- 1. Hospital Transfusion Committee- Member Secretory-2024 & onwards
- 2. Patient Safety Committee- Member 2024 & onwards
- 3. Information Technology- Member Secretory 2023 & onwards
- 4. Recruitment Cell- Member 2023 & onwards
- 5. Furniture Committee- Member 2023 & onwards
- 6. House allotment committee- Member 2024 & onwards
- 7. CCTV implementation Committee- Member 2024 & onwards
- 8. IT Condemnation Committee- Member 2024 & onwards
- 9. HLA & Transplant Immunology Committee- Member 2024 & onwards
- 10. Institute Cultural (Drama) Committee- Member 2023 & onwards
- 11. Hindi Pakhwada- Judge 2023
- 12. Convocation Committee- 2023
- 13. Co-Coordinator-IIT, Delhi lead consortium for setting up Center of Excellence (CoE) in AI for Healthcare-AIIMS Jodhpur, 2023
- 14. Department Technical & Financial Evaluation Committee- Member 2024 & onwards
- 15. Nodal officer from department to Finance Adviser- Member 2023 % onwards
- 16. Member Secretary- Entrepreneurship policy and implementation