List of suggested material for ESHI Exam preparation

Textbooks
The following all have chapters that give basic background on the HLA Complex / HLA and transplantation:


The immunological barriers to regenerative medicine. PJ Fairchild (Ed), ISBN: 978-1-4614-5479-3

Papers
The following are review papers, key research papers, guidelines or websites.

Section 4: Innate and adaptive immunity
REVIEW ARTICLE
Innate Immunity
R Medzhitov, C Janeaway
NEJM, 2000, 343, 338.

REVIEW ARTICLE
Cooperation of Toll-like receptor signals in innate immune defence
Giorgio Trinchieri and Alan Sher
Nature Reviews Immunology, 2007, 7, 179.

REVIEW ARTICLE
Innate lymphoid cells and the MHC
M. L. Robinette & M. Colonna
HLA, 2016, 87, 5–12

REVIEW ARTICLE
Cellular Innate Immunity: An Old Game with New Players
Georg Gasteiger et al
J Innate Immunity 2017; 9: 111-125

Section 5: Transplant immunology
REVIEW ARTICLE
Minor histocompatibility antigens: past, present, and future
Eric Spierings
Tissue Antigens, 2014, 84, 347–360
REVIEW ARTICLE
Allorecognition Pathways in Transplant Rejection and Tolerance
Transplantation, 2013, 96(8), 681-8

REVIEW ARTICLE
Acute Graft versus Host Disease – Biologic Process, Prevention and Therapy
Robert Zeiser and Bruce Blazar
New England Journal of Medicine, 2017; 377: 2167-79

REVIEW ARTICLE
Hematopoietic stem cell transplantation and cellular therapy
H-J Kolb
HLA, 2017; 89: 267-277

REVIEW ARTICLE
Antibody-mediated rejection across solid organ transplants: manifestations, mechanisms and therapies
Nicole M. Valenzuela and Elaine F. Reed
Journal of Clinical Investigation, 2017; 127(7): 2492-2504

REVIEW ARTICLE
Matching donor and recipient based on predicted indirectly recognizable human leucocyte antigen epitopes
K Geneugelijk and E Spierings
International Journal of Immunogenetics, 2018; 45: 41-53

KEY PAPER
Role of de novo donor-specific anti-HLA antibodies in kidney graft failure: A case-control study
Castro et al
HLA, 2017; 90: 267-275

Section 7: Relevant techniques in H&I Services

REVIEW ARTICLE
Out with the Old, In with the New: Virtual vs Physical Crossmatching in the Modern Era
Anna B Morris et al.

REVIEW ARTICLE
Clinically relevant interpretation of solid phase assays for HLA antibody
M Bettinotti, A Zachary and M Leffell
Current Opinion in Organ Transplantation, 2016, 21: 453-458
REVIEW ARTICLE
Caveats of HLA antibody detection by solid phase assays
Wehmeier, G Honger and S Schaub

REVIEW ARTICLE
Improved flow cytometry crossmatching in kidney transplantation
N Guillaume
HLA, 2018, 92:375-383

KEY PAPER
Determinants of C1q Binding in the Single Antigen Bead Assay
Stefan Schaub, Gideon Honger, Michael T. Koller, Robert Liwski and Patrizia Amico
Transplantation. 2014; 98(4):387-93

KEY PAPER
Comparison of sequence specific oligonucleotide probe vs next generation sequencing for HLA-A, B, C, DRB1, DRB3/4/5, DQA1, DQB1, DPA1 and DPB1 typing: toward single-pass high resolution HLA typing in support of solid organ and hematopoietic cell transplant programs
A Smith et al.,
HLA, 2019, 94: 296-306

GUIDELINES
Monitoring of chimerism following allogeneic haematopoietic stem cell transplantation (HSCT): Technical recommendations for the use of short tandem repeat (STR) based techniques, on behalf of the United Kingdom National External Quality Assessment Service for Leucocyte Immunophenotyping Chimerism Workshop
J. Clark et al.
British Journal of Haematology, 2015, 168:26-37

KEY PAPER
Diagnostic value of highly-sensitive chimerism analysis after allogeneic stem cell transplantation.L Sellmann et al.
Bone Marrow Transplantation, 2018, 53: 1457-1465

Section 8: Genetics and Molecular Genetics
REVIEW ARTICLE
KIR and KIR ligand polymorphism: a new area for clinical applications?
M. Falco, L. Moretta, A. Moretta & C. Bottino
Tissue Antigens, 2013, 82, 363–373

WORKSHOP REPORT
Falco M, Sivori S,Meazza R, Pende D.
HLA, 2019;94:100–110
Section 9: Biostatistics and Bioinformatics

WEBSITE
Allele frequencies in worldwide populations
http://allelefrequencies.net/

WEBSITE
IMGT HLA
http://www.ebi.ac.uk/ipd/imgt/hla/allele.html

Section 10: Clinical Relevance of H&I in Solid Organ Transplantation

GUIDELINE DOCUMENT
Guidelines for the detection and characterisation of clinically relevant antibodies in allotransplantation
A collaborative publication by:
British Society for Histocompatibility & Immunogenetics
(www.bshi.org.uk)
British Transplantation Society
(www.bts.org.uk)
Available from the BSHI website

REVIEW ARTICLE
HLA Mismatching strategies for Solid Organ Transplantation – A Balancing Act
Andrea Zachary and Mary Leffell
Frontiers in Immunology, 2016; 7: Article 575

REVIEW ARTICLE
Assessment of human leukocyte antigen immunogenicity: current methods, challenges and opportunities
Hannah Copley, Madhivanan Elango and Vasilis Kosmoliaptsis
Current Opinion in Organ Transplantation, 2018, 23: 477-485

REVIEW ARTICLE
Human leukocyte antigen matching in organ transplantation: what we know and how can we make it better (Revisiting the past, improving the future)
Anat Tambur
Current Opinion in Organ Transplantation, 2018; 23: 470-476

KEY PAPER
A Comparison of HLA Molecular Mismatch Methods to Determine HLA Immunogenicity
Chris Wiebe et al
Transplantation, 2018, 108: 1338-1343

KEY PAPER
Complement-Binding Anti-HLA Antibodies and Kidney-Allograft Survival
Alexandre Loupy, Carmen Lefaucheur et al
KEY PAPER
Acquisition of C3d-Binding Activity by De Novo Donor-Specific HLA Antibodies Correlates With Graft Loss in Nonsensitized Pediatric Kidney Recipients
P. Comoli, M. Cioni, A. Tagliamacco et al
American Journal of Transplantation, 2016

Section 11: Clinical Relevance of H&I in HSCT
GUIDELINE DOCUMENT
BSHI Guideline: HLA matching and donor selection for haematopoietic progenitor cell transplantation
A-M Little et al.
International Journal of Immunogenetics, 2016, 43; 263-286

GUIDELINES DOCUMENT
Selection of Unrelated Donors and Cord Blood Units for Hematopoietic Cell Transplantation: Guidelines from NMDP/CIBMTR
Jason Dehn et al
Blood 2019; DOI 10.1182/blood.2019001212

REVIEW ARTICLE
How to select the best available related or unrelated donor of hematopoietic stem cells?
Jean-Marie Tiercy
Haematologica, 2016; 101(6):680-687

REVIEW ARTICLE
The European Society for Blood and Marrow Transplantation (EBMT) consensus recommendations for donor selection in haploidentical hematopoietic cell transplantation.
Stefan O Ciurea et al
Bone Marrow Transplantation, 2019, https://doi.org/10.1038/s41409-019-0499-z

REVIEW ARTICLE
Major Histocompatibility Complex and Hematopoietic Stem Cell Transplantation; beyond the Classical HLA Polymorphism
Alice Bertaina and Marco Andreani
International Journal of Molecular Sciences, 2018; 19, 621-635

MINI REVIEW
Donor-Specific Anti-HLA Antibodies in Allogeneic Hematopoietic Stem Cell Transplantation
Sarah Morin-Zorman et al
Frontiers in Immunology, 2016, 7, Article 307

Section 12: Clinical Relevance of H&I in Transfusion
REVIEW ARTICLE
Clinical relevance of the HLA system in blood transfusion
C. J. Brown & C. V. Navarrete
Vox Sanguinis, 2011, 101(2):93-105
REVIEW ARTICLE
Platelet refractoriness – practical approaches and ongoing dilemmas in patient management
S Stanworth et al.
British Journal of Haematology, 2015, 171: 297-305

KEY PAPER
Low-level HLA antibodies do not predict platelet transfusion failure in TRAP study participants
Rachael P. Jackman, Xutao Deng, Douglas Bolgiano, Mila Lebedeva, John W. Heitman, Michael P. Busch, Sherrill J. Slichter and Philip J. Norris
Blood 2013, 121(16):3261-3266

KEY PAPER
Impact of Human Leucocyte Antigen epitope matched platelet transfusions in alloimmunised aplastic anaemia patients
D Kallon et al
Transfusion Medicine, 2019, doi: 10.1111/tme.12612

WEBSITE
Serious Hazards of Transfusion (UK)
http://www.shotuk.org/shot-reports/

Section 13: Clinical Relevance of H&I in disease, cancer and pharmacogenetic testing

REVIEW ARTICLE
HLA and disease: guilt by association
Martin Howell

REVIEW ARTICLE
Associations of human leukocyte antigens with autoimmune diseases: challenges in identifying the mechanism
Hiroko Miyadera and Katsushi Tokunaga

REVIEW ARTICLE
HLAs: Key regulators of T-cell mediated drug hypersensitivity
Redwood et al.
HLA, 2018, 91: 3-16

REVIEW ARTICLE
The complexity and diversity of major histocompatibility complex challenge disease association studies
Marja-Liisa Lokki and Riitta Paakkanen
HLA, 2018: DOI:10.1111/tan.13429
Section 14: Organ allocation and enhancing donation rates

KEY PAPER
Survival Benefit with Kidney Transplants from HLA Incompatible Live Donors

REVIEW ARTICLE
Kidney paired donation: fundamentals, limitations, and expansions
Gentry SE, Montgomery RA, Segev DL
Am J Kidney Dis. 2011, 57(1):144-51

REVIEW ARTICLE
Solid Organ Transplantation in the 21st Century
C Black et al.
Annals of Translational Medicine, 2018:6(20): 409