

## ASN/AST TRANSPLANT NEPHROLOGY CORE CURRICULUM (TNCC) 2019

### About the Curriculum

This online curriculum offers a review of knowledge deemed essential for the care of kidney transplant recipients based on the American Board of Internal Medicine's nephrology blueprint. The program consists of 9.75 hours of presentations presented by outstanding speakers and contains a self-examination to help you assess your knowledge in this discipline.

### Learning Objectives

At the conclusion of the program, the learner should be able to:

- Discuss the immunologic basis for acute and chronic rejection of renal allografts.
- Delineate algorithms for evaluation of potential kidney transplant recipients and donors.
- Define the short- and long-term outcomes of kidney transplant recipients and donors in the modern era.
- Discuss basic pharmacology of currently available immunosuppressive drugs.
- Describe the perioperative management and potential surgical complications of kidney transplantation.
- Discuss the pathophysiology and management of common long-term complications of kidney transplantation.
- Delineate the role of the Organ Procurement Transplant Network in regulating allocation of deceased donor organ transplantation.
- Describe management issues that are unique to pediatric kidney transplant recipients.

### Target Audience

This course is of great value to nephrologists preparing for either board certification or maintenance of certification in nephrology. It is also valuable to nephrology fellows, surgical transplant fellows, other trainees, advanced practitioners, nurses, pharmacists, transplant coordinators, and other professionals interested in kidney transplantation.

### Accreditation Statement



In support of improving patient care, this activity has been planned and implemented by the American Society of Nephrology and the American Society of Transplantation (AST). The American Society of Nephrology is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC), to provide continuing education for the healthcare team.

### Credit Designation Statements

ASN designates this enduring material for a maximum of 9.75 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

This activity is awarded up to 9.75 ANCC contact hours. Participants should claim only credit commensurate with the extent of their participation in the activity.

The Universal Activity Number (UAN) is JA4008260-9999-21-001-H01-P. This program provides up to 9.75 contact hours of continuing pharmacy education credit. Participants should claim only credit commensurate with the extent of their participation in the activity.

### **ABIM MOC Statement**

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 9.75 MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

### **Statement from ABIM**

This course has been developed as an original and independent educational offering based on the public ABIM examination blueprint and is not approved or endorsed by ABIM. In accordance with ABIM policy, no ABIM Board members have been involved in the development of this course. ASN cannot guarantee that attending this course will result in passing the ABIM examination.

### **Activity Evaluation, CE Credits, and MOC Points**

1. Use your notes taken during the activity to provide accurate evaluation feedback.
2. Under the **To Do List** on the left navigation:
  - a. Click the **Demographics & General Eval** link and enter your information.
  - b. Click the **Session/Speaker Evaluations** link and enter your information.
  - c. Complete the **Post Test** (required for CME/CNE/CPE credits and MOC points). Participants will be given two (2) attempts to pass the Post Test (minimum performance level = 70% correct). Upon completion, you will be able to access the Answers and Explanations for viewing/printing. If you do not pass the Post Test within 2 attempts, you cannot claim CME/CNE/CPE credits or MOC points for this activity.
  - d. Upon successful completion of the post test, if you are a physician, nurse, or pharmacist, click the **Claim Your Credits** link, check the Attestation Statement box, and enter the number of CME credits commensurate with the extent of your participation in the activity.
  - e. Click the **Print Your Certificate** link.
  - f. If you are a physician click the **Claim Your MOC Points** link, check the Attestation Statement box, and submit.

CE Credits will be posted to your ASN Transcript immediately. View/Print Transcript at My CME Center. MOC Points will be posted to ABIM within two business days.

To assist in improving this activity, please complete the follow-up survey that will be emailed to you in the weeks to follow.

### **Exam**

Please note: The **Post Test** will be available until March 25, 2022, when this activity expires.

### **Original Release and Last Review Date**

March 2019

### **CME Credit and Post-test Termination Date**

March 25, 2022

### **Estimated Time for Completion**

9.75 hours

## **Planning Committee and Faculty**

### *Planning Committee*

Kim M. Alleman, APRN, RN  
Hartford Hospital Transplant Program (Retired)  
Lebanon, CT

Kelly A. Birdwell, MD, MS  
Vanderbilt University Medical Center  
Nashville, TN

Daniel C. Brennan, MD  
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Michelle A. Josephson, MD  
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Chicago, IL

Aleksandra Kukla, MD  
Mayo Clinic  
Rochester, MD

Jennifer Trofe-Clark, PharmD  
Hospital of the University of Pennsylvania  
Philadelphia, PA

### *Faculty*

Rita R. Alloway, PharmD  
University of Cincinnati  
Cincinnati, OH

Roy D. Bloom, MD  
University of Pennsylvania  
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Daniel C. Brennan, MD  
Johns Hopkins Hospital  
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University of Wisconsin Hospital  
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Vanderbilt University Medical Center  
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Alexander C. Wiseman, MD  
University of Colorado at Denver and Health  
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## Faculty, Planner, and Staff Disclosure

It is the policy of American Society of Nephrology (ASN) that all individuals in a position to control the content of ASN's sponsored CME activities are expected to provide full disclosure for both themselves and their spouse/partner, and to indicate to the activity audience any financial or other relationship held by themselves or their spouse/partner 1) with the manufacturer(s) of any commercial product(s) and/or provider(s) of commercial service(s) discussed in an educational presentation; and 2) with any commercial supporter(s) of the activity. All responses should reflect activities within the previous 12 months. This disclosure information is collected in accordance with Accreditation Council for Continuing Medical Education (ACCME). Furthermore, ASN requires all faculty to disclose at the time of their lecture any planned discussion of investigational and/or off-label use of pharmaceutical products or devices within their presentation. Participants should note that the use of products outside U.S. Food and Drug Administration (FDA) approved labeling should be considered experimental and are advised to consult current prescribing information for approval indications.

The intent of this policy is not to prevent expert faculty with relevant relationship(s) with commercial interest(s) from involvement in Continuing Medical Education (CME), but rather to ensure that ASN CME activities promote quality and safety, are effective in improving medical practice, are based on valid content, and are independent of control from commercial interests and free of commercial bias. In addition, all faculty members were instructed to provide balanced, scientifically rigorous, and evidence-based presentations.

View the full ASN [Conflict of Interest and Disclosure Policy](#).

### Faculty Disclosure Statements:

**Alleman, Kim M.**—Other Interests/Relationships: Nephrology Nursing Certification Commission (NNCC), President; Kidney Care Partners, NNCC member

**Alloway, Rita R.**—Current Employer: University of Cincinnati; Research Funding: BMS, Novartis, Astellas, Veloxis; Honoraria: Astellas, Veloxis; Scientific Advisor or Membership: AST Board of Directors, AJT editorial board

**Birdwell, Kelly A.**—Current Employer: Vanderbilt University Medical Center; Scientific Advisor or Membership: American Society of Nephrology CPD Committee American Society of Transplantation Kidney Pancreas Community of Practice

**Bloom, Roy D.**—Current Employer: University of Pennsylvania; Consultancy Agreements: Veloxis Pharmaceuticals; Research Funding: CareDx, Shire Scientific Advisor or Membership: Veloxis, Alexion, Abbvie, CareDx, CSL Behring Editorial Board, American Journal of Kidney

**Brennan, Daniel C.**—Current Employer: The Johns Hopkins University School of Medicine; Consultancy Agreements: CareDx, Sanofi, Veloxis; Research Funding: CareDx; Honoraria: CareDx, Sanofi, Veloxis; Scientific Advisor or Membership: Editorial Board: Transplantation, UpToDate

**Dharnidharka, Vikas R.**—Current Employer: Washington University School of Medicine; Consultancy Agreements: Bristol-Myers-Squibb, Atara Biotherapeutics; Research Funding: Bristol-Myers-Squibb Novartis; Honoraria: Reata

**Friedewald, John J.**—Current Employer: Northwestern University; Consultancy Agreements: Transplant Genomics, Inc., Novartis, Potomac Center for Medical Education, Abbvie; Ownership Interest: Transplant Genomics, Inc.; Research Funding: Abbvie; Vitaeris; Transplant Genomics, Inc.; Shire; NIH; Honoraria: Potomac Center for Medical Education, Sanofi, Novartis, Veloxis; Scientific Advisor or Membership: Transplant Genomics, Inc.; Speakers Bureau: Sanofi, Novartis

**Josephson, Michelle A.**—Current Employer: University of Chicago; Consultancy Agreements: Medeor Therapeutics, Mycophenolate Pregnancy Registry, Labcorp; Ownership Interest: Seagen; Research Funding: Gift of Hope; Honoraria: SUNY Downstate, ASN Highlights, ASN Board Review; Scientific Advisor or Membership: Editorial Boards: Transplantation, CJASN, and American Journal of Nephrology; Mycophenolate pregnancy registry advisory board, SONG-Transplant steering committee, AST CEOT planning committee, AST Education Committee

**Kukla, Aleksandra**—Current Employer: Mayo Clinic Rochester; Honoraria: UpToDate

**Locke, Jayme E.**—Current Employer: University of Alabama at Birmingham; Honoraria: Spire Learning; Scientific Advisor or Membership; Associate Editor – Transplantation; Speakers Bureau: Spire Learning

**Mandelbrot, Didier A.**—Current Employer: U of Wisconsin Hospital

**Schaefer, Heidi M.**—Current Employer: Vanderbilt University Medical Center

**Trofe-Clark, Jennifer**— Current Employer: Hospital of the University of Pennsylvania; Consultancy Agreements: Lexicomp; Honoraria: Lexicomp; Other Interests: Currently serving as invited member of the American Transplant Congress Planning Committee

**Wiseman, Alexander C.**—Current Employer: University of Colorado at Denver and Health Sciences Center; Consultancy Agreements: Veloxis; Research Funding: Novartis, Alexion, Bristol Meyer Squibb, Oxford Immunotec, Quark, Astellas Scientific Advisor or Membership: American Society of Transplantation, American Journal of Transplantation, American Society of Nephrology NephSAP

### **Staff Disclosure Statements**

The following ASN staff do not have anything to disclose: Jin Soo Kim, Charyl Delaney

### **Medium Used**

Streaming media with audio and slides

### **Hardware/Software and System Requirements**

- Operating Systems: Windows, Mac
- Recommended RAM: 512MB+
- Supported Browsers: Internet Explorer 11 or higher, Firefox, Chrome, Safari, Opera
- Javascript & Cookies enabled
- PDF viewer to view PDF documents
- Internet connection required to access web pages and downloadable content

### **Mobile Device Requirements**

- Modern Apple iPad/iPhone
- Modern Android Device

**Note:** Firewalls and Proxy servers can limit, disable, or even block access to some or all content based on the configuration set by your location's Internet Service Provider (ISP). Digitell will provide reasonable support to users but cannot guarantee access to 100% of online content if such restrictions on the user's connection are imposed by the user's service provider or network administrator. If you have difficulty accessing the curriculum at your hospital or institution, please try accessing from a home computer, as there are generally fewer restrictions on personal networks.

#### **Method of Participation**

- Listen and view streaming media with audio and slides.
- Complete the post-test.

#### **Acknowledgement of Commercial Support**

This activity is not commercially supported.

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#### **Contact Information**

For any questions concerning the purchase of or access to this activity, please contact AST at 856-439-9986 or via email at [info@myAST.org](mailto:info@myAST.org).

For any questions concerning the activity content or CE, please contact ASN at 202-640-4660 or via email [education@asn-online.org](mailto:education@asn-online.org).

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