ABTC Candidate Handbook

CERTIFIED PROCUREMENT TRANSPLANT COORDINATOR (CPTC®)

CERTIFIED CLINICAL TRANSPLANT COORDINATOR (CCTC®)

CERTIFIED CLINICAL TRANSPLANT NURSE (CCTN®)

CERTIFIED TRANSPLANT PRESERVATIONIST (CTP®)

CERTIFIED TRANSPLANT FINANCIAL COORDINATOR (CTFC)

info@abtc.net

Introduction and Purpose

The Candidate Handbook describes what is required of each candidate preparing to take the certification exam including valuable information about logistics, content, eligibility, and required procedures. ABTC certification examinations are developed in accordance with best practice industry guidelines.

DEI Statement

The American Board for Transplant Certification is an independent, not-for-profit organization that was founded in 1988. ABTC is a certifying agency offering voluntary credentialing examinations in the field of organ transplantation. ABTC is incorporated as an independent corporation and performs the following services:

- Establishing educational and competency standards for the transplant professional.

- Defining transplant coordination, nursing, and organ preservation as a profession.

- Credentialing transplant professionals.

- Maintaining a list of credentialed practitioners.

- Promoting continued professional growth of practitioners through education and recertification.

ABTC's Non-Discrimination Policy

All candidates have the right to expect all aspects of the certification process to be fair and free from discrimination. Reasonable efforts are made to ensure examinations are job-related; no candidate is excluded from the examination as a result of age, sex, race, religion, national origin, ethnicity, disability, marital status, sexual orientation, and gender identity; language that may be offensive to population subgroups is eliminated; with vigilance to avoid bias and stereotyping.

ABTC's Statement on Diversity and Inclusion

We are committed to the inclusion of all cultures, ethnicities, and levels of experience. It drives us as we uphold our mission, strive to attain our vision, and keeps us connected with members at large and the transplant community we serve.

Benefits of Certification

Certification offers potential benefits for the professional, the employer and the public which include:

- Creating a standard for professionals in a particular discipline.

- Identifying professional achievement.

- Offering validation of skills and knowledge and increasing professional credibility.

- Furthering knowledge in targeted areas.

- Demonstrating continuing competence through the requirements of maintenance of certification process.

- Assuring the public and employers that the certification has met and continues to meet rigorous requirements.

- Providing possible employment advantages over non-certified job candidates.

Testing Vendor

PSI Services is the professional testing company contracted by ABTC to support the development, administration, scoring, and analysis of ABTC examinations. PSI provides research, development, and measurement services to credentialing programs as well as test administration services.

Qualifications for the Examinations

Certified Clinical Transplant Coordinator (CCTC®), Certified Procurement Transplant Coordinator (CPTC®), and Certified Transplant Preservationist (CTP®) Examinations

Candidates for the CCTC®, CPTC® and the CTP® examinations are eligible to sit for the exam after completing a minimum of 12 months as a transplant coordinator or preservationist and are confident that they have obtained the knowledge about the field through independent study or formal training programs by the date of the application.

Certified Clinical Transplant Nurse (CCTN®) Examination

Eligibility requirements for the CCTN® examination are: (1) 12 months of general experience as a Registered Nurse (RN) and (2) an additional 12 months of experience while working as a transplant nurse.
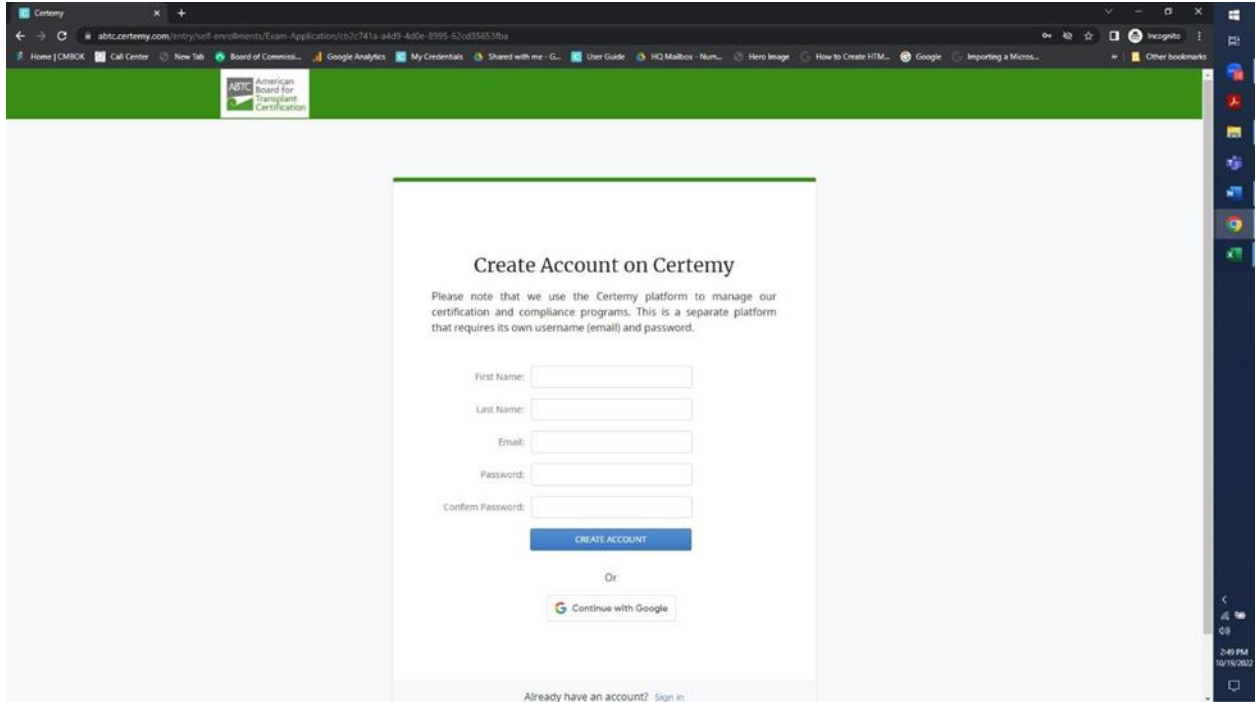
Certified Transplant Financial Coordinator (CTFC):

Candidates must have completed 12 months of work experience as a transplant financial coordinator or equivalent position.

Applying for an Exam

You may complete an online application by creating an account in Certemy.

1. To create an account, follow the "Apply for an ABTC Certification Exam" link on the ABTC website.

2. Click on the steps to the right to complete: Personal Information, Examination Applied For, Demographics (applicant will upload the Employer Attestation Form in this section), and Applicant Signature. Once you have entered all the information required it will change from "Incomplete" to "Pending Verification". The Eligibility to Test step is completed by ABTC Staff.

3. A "Credential step was verified" email from Certemy will be sent once each step is approved. If one of the steps is rejected, you will receive an "Attention Required:" email indicating what action(s) need to be taken. Log back into your Certemy account to correct the rejected steps.

4. After you have completed all the steps, please allow approximately one week for your application to be reviewed.

5. Once your application is approved, a final email from Certemy will be sent titled "Credential of completion is available". Please check your spam or junk mail if you have not received this email.

6. You will be directed to log back into Certemy to go to your Digital Wallet.

7. In your Digital Wallet is where you will find the nine-digit number you will need to schedule your exam with PSI.

8. In approximately 1 to 2 weeks, PSI will send you an email with instructions to schedule your ABTC exam. If you do not receive an email within that time, please reach out to ABTC at info@abtc.net.

9. Acceptance is valid for 90 days from the date the candidate is confirmed exam-eligible (as specified in the confirmation notice). A candidate who fails to schedule an appointment for an examination within the 90-day period forfeits the application and all fees paid to take the examination. The candidate will be required to reapply for a future examination.

Scheduling an Examination Appointment

Approximately 1 to 2 weeks from the time you have received your eligibility email from Certemy, you will receive a scheduling email with instructions from PSI. You will then be able to schedule your exam. (The screenshots and instructions below can assist you in the online scheduling process). You will have 90 days from the approval of your exam application to schedule and take your exam.

Steps for online account creation/scheduling:

- Go to: https://schedule.psiexams.com

- Click on Begin Scheduling

- Input the required information on the "Everything You Need is Three Steps Away"

- Click on "Register for this Exam"

- Click on "New User"

- And follow the prompts for the creation of their account

- You must use your Certemy ID in place of CD ID/SSN

- The zip code must match what we received on the import file.
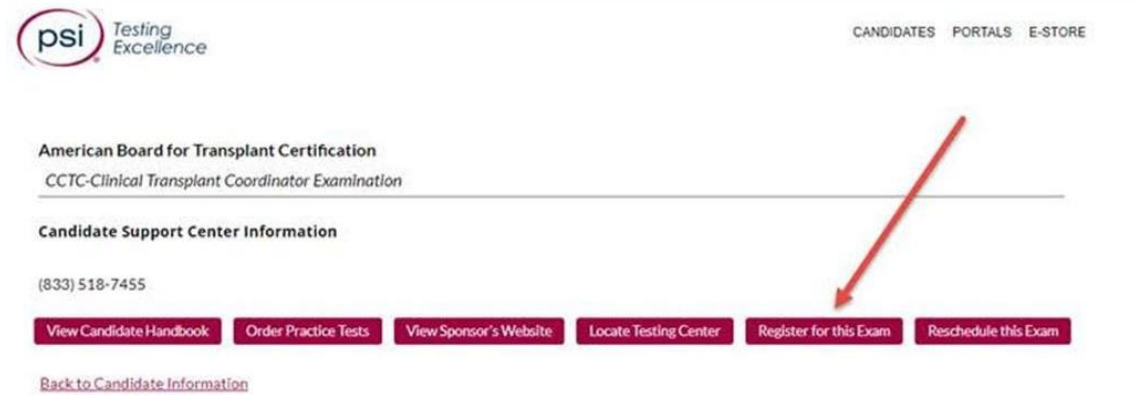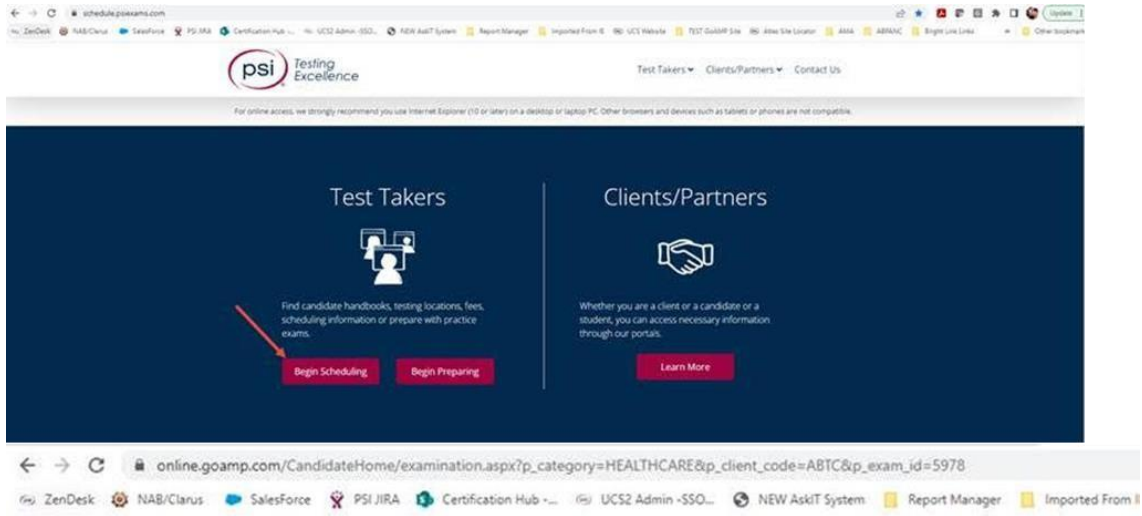
If you are trying to schedule a Retake, you must wait 90 days from your last exam attempt. Please see the "If You Do Not Pass the Examination" section of this handbook for further details.

ABTC examinations are administered by computer at approximately 300 PSI Test Centers geographically distributed throughout the United States.

When contacting PSI, please be prepared to confirm a date and location for testing and to provide your nine-digit unique identification number. Examinations are administered by appointment only Monday through Saturday. Appointment starting times may vary by location. Individuals are scheduled on a first-come, first-served basis.

Request for International Test Center

International test centers may be arranged for candidates outside of the United States. The ABTC examinations will be offered in a computerized format.

For a complete list of international PSI Test Centers please visit *https://schedule.psiexams.com*. PSI is working toward continued expansion of the Test Center Network and ABTC recommends that you continue to check the available list for additional sites.

Special Accommodations

The ABTC will provide reasonable accommodations for exam candidates with disabilities that are covered under the Americans with Disabilities Act Amendments Act (ADAAA). Requests for testing accommodation must be made as indicated during the online application process by completing the Special Accommodation form. You will upload the request into your application along with a letter from a licensed medical professional. Once reviewed, you will be contacted by ABTC to confirm the exam accommodation. Candidates whose requests are approved must call PSI at 833-333-4755 to schedule an examination appointment.

PSI has created a pre-approved list of comfort aids including specific medicine and medical devices including those attached to a person's body, communication aids, mobility devices, and service animals. Test Center Administrators and online proctors will perform an inspection of the aids prior to testing.

What this means for the accommodations process:

- Test Sponsors who send PSI-approved accommodations will no longer need to include them.

- For any accommodation not appearing on the list, the formal request process is required.

This policy is effective as of May 1, 2023. Please refer to the link for the complete list of pre-approved aids.

Credential Designation

Your certification will be granted when you pass the examination. All successful candidates will receive an official certificate uploaded into their Certemy account. The certificate provides visible evidence that you have achieved a level of competence in the field of transplantation. Passing the examination allows you to display the credential designation, CCTC®, CPTC®, CTP®, CCTN® or CTFC after your name.

Change of Address

It is the candidate's responsibility to report any changes of address to ABTC.

Examination Fees

Payment must be made when submitting the online application with a credit card (American Express, VISA or MasterCard in U.S. dollars.

Exam Fees:

CCTC®, CPTC®, CTP®	$495
CCTN®	$350
CTFC	$100
Application Fee	$150
International Administration Fee	$225

All fees are non-refundable
An application and exam fee must be submitted for each request to take the exam, including re-applications.

Missed Appointments and Forfeitures

You will forfeit your examination registration and all fees paid to take the examination under the following circumstances. A new complete application and examination fee are required to reapply for the examination.

- You do not schedule an examination appointment within the 90-day eligibility period.

- You wish to reschedule an examination but fail to contact PSI at least two business days prior to the scheduled testing session.

- You wish to reschedule a second time.

- You appear more than 15 minutes late for an examination.

- You failed to report for an examination appointment.

If you experience a medical emergency that requires immediate attention and does not allow you to appear for the examination appointment, you may submit documentation of such in writing to ABTC for

consideration of rescheduling an appointment prior to forfeiting the entire fee.

Application Refusal

An application for ABTC examinations may be refused if ABTC receives evidence to indicate that an applicant may have committed one of the following violations:

1. obtaining or attempting to obtain Certification or Recertification by fraud, deception or artifice;

2. knowingly assisting another person or persons in obtaining or attempting to obtain Certification or Recertification by fraud, deception or artifice;

3. illegal use of a certificate of credential or falsification of credentials – either ABTC credentials or credentials used in qualifying for the examination;

4. unauthorized possession and/or distribution of any official ABTC testing or examination materials; or

5. conviction in a court of law or revocation of a license to practice for an offense directly related to the practice of vascular organ transplantation, which gives cause to question an individual's ability to practice in a safe and competent manner.

Appeals

All appeals regarding admission decisions must be submitted in writing by email to ABTC within 30 days after receipt of written notification of admission eligibility to be considered. These appeals should be emailed to the following address: *info@abtc.net*

Examination Appointment Changes

Prior to testing, you may reschedule your examination appointment only ONCE at no charge by calling PSI at 833-333-4755 (toll- free) at least two (2) business days prior to the original scheduled testing appointment and within the 90-day eligibility period. (See the following table).

If your examination is scheduled on…	You must contact PSI by 3:00 p.m. Central Time to reschedule the examination by the previous…
Monday	Wednesday
Tuesday	Thursday
Wednesday	Friday
Thursday	Monday
Friday	Tuesday

Inclement Weather, Power Failure or Emergency

In the event of inclement weather or unforeseen emergencies on the day of an examination, PSI will determine whether circumstances warrant the cancellation, and subsequent rescheduling, of an examination. The examination will usually not be rescheduled if the Test Center personnel are able to open the Test Center.

You may visit https://schedule.psiexams.com prior to the examination to determine if PSI has been advised that any Test Centers are closed. Every attempt is made to administer the examination as

scheduled; however, should an examination be canceled at a Test Center all scheduled candidates will receive notification following the examination regarding rescheduling or reapplication procedures.

If power to a Test Center is temporarily interrupted during administration, your examination will be restarted. The responses provided up to the point of interruption will be intact, but for security reasons the questions will be scrambled.

Taking the Examination

Your examination will be given via computer at a PSI Test Center. You do not need any computer experience or typing skills to take your examination. On the day of your examination appointment, report to the Test Center no later than your scheduled testing time. IF YOU ARRIVE MORE THAN 15 MINUTES AFTER THE SCHEDULED TESTING TIME, YOU WILL NOT BE ADMITTED.

You will have three (3) hours to complete the CCTC®, CPTC® or the CCTN® examination. Each of these examinations contains 175 items. Responses to 150 of these items will contribute to your score. You will have two (2) hours to complete the CTP® examination. This examination contains 110 items. Responses to 100 of those items will contribute to your score. For the CTFC exam you will have three (3) hours to complete. This examination contains 100 items.   (See About the Examination Section for more information on scored and pre-test items). The computer will indicate the time remaining on the screen. If you find it distracting, the time feature may be turned off during the examination.

The time limit is intended to allow adequate time for a prepared candidate to read the items and submit responses.

Identification

To gain admission to the Test Center, you must present two forms of identification. The primary form must be government- issued, current and include your name, signature, and photograph. No form of temporary identification will be accepted. You will also be required to sign a roster for verification of identity.

- Examples of valid primary forms of identification are: driver's license with photograph; state identification card with photograph; passport; military identification card with photograph.

- The secondary form of identification must display your name and signature for signature verification (e.g., credit card with signature, social security card with signature, employment/student ID card with signature).

- If your name on your registration is different than it appears on your identification, you must bring proof of your name change (e.g., marriage license, divorce decree or court order).

Security

PSI administration and security standards are designed to ensure all candidates are provided the same opportunity to demonstrate their abilities. The Test Center is continuously monitored by audio and video surveillance equipment for security purposes.

The following security procedures apply during the examination:

- Candidates must have proper identification to gain admission to the Test Center. Failure to provide appropriate identification at the time of the examination is considered a missed appointment. There will be no refund of examination fees.

- Examinations are proprietary. No cameras, notes, paper, recorders, pagers, or cellular/smartphones are allowed in the testing room. Possession of a cellular/smart phone or other electronic devices is strictly prohibited and will result in dismissal from the examination.

- Test takers will be asked to undergo a metal detection wanding inspection as part of the security

- No calculators are allowed.

- No guests, visitors or family members are allowed in the testing room or reception areas.

Exam Personal Belongings

No personal items, valuables or weapons should be brought to the Test Center. Only wallets and keys are permitted. Large coats and jackets must be left outside the testing room. You will be provided with a soft locker to store your wallet and/or keys with you in the testing room. The proctor will lock the soft locker prior to you entering the testing room. You will not have access to these items until after the examination is completed.

Please note the following items will not be allowed in the testing room except securely locked in the soft locker.

- phones

- watches

- hats

- wallets

- keys

Once you have placed your personal belongings into the soft locker, you will be asked to pull out your pockets to ensure they are empty. If you bring personal items that will not fit in the soft locker, you will not be able to test. The site will not store or be responsible for your personal belongings.

If any personal items are observed or heard (e.g., cellular/smart phones, alarms) in the testing room after the examination is started, you will be dismissed, and the administration will be forfeited.

Examination Restrictions

- Pencils will be provided during check-in.

- You will be provided with one piece of scratch paper at a time to use during the examination, unless noted on the sign-in roster for a particular candidate. You must return the scratch paper to the testing center administrator at the completion of testing, or you will not receive your score report.

- No documents or notes of any kind may be removed from the Test Center.

- No questions concerning the content of the examination may be asked during the examination.

- Eating, drinking, or smoking will not be permitted in the Test Center.

- You may take a break whenever you wish, but you will not be allowed additional time to make up for time lost during breaks.

Misconduct

If you engage in any of the following conduct during the examination you may be dismissed, your scores will not be reported, and examination fees will not be refunded. Examples of misconduct are when you:

- create a disturbance, are abusive or otherwise uncooperative;

- display and/or use electronic communications equipment such as pagers, cellular/smart phones;

- talk or participate in conversation with other examination candidates;

- give or receive help or are suspected of doing so;

- leave the Test Center during the administration;

- attempt to record examination questions or make notes;

- attempt to take the examination for someone else;

- are observed with personal belongings, or

- are observed with notes, books or other aids without it being noted on the roster

Copyrighted Examination Questions

All examination questions are the copyrighted property of ABTC. It is forbidden under federal copyright law to copy, reproduce, record, distribute or display these examination questions by any means, in whole or in part. Doing so may subject you to severe civil and criminal penalties.

Computer Login

After your identification has been confirmed, you will be directed to a testing station. You will be instructed on-screen to enter your identification number. Your photograph, taken before beginning the examination, will remain on-screen throughout your examination session. This photograph will also print on your score report.

Practice Examination

Prior to attempting the examination, you will be given the opportunity to practice taking an examination on the computer. The time you use for this practice examination Is Not counted as part of your examination time or score.

When you are comfortable with the computer testing process, you may quit the practice session and begin the timed examination.

Timed Examination

Following the practice examination, you will begin the timed examination. Before beginning, instructions for taking the examination are provided on-screen.

The computer monitors the time you spend on the examination. The examination will terminate if you exceed the time allowed. You may click on the Time box in the lower menu bar on the screen to monitor your time. A digital clock indicates the time remaining for you to complete the examination. The Time feature may be turned off during the examination.

Only one examination question is presented at a time. The question number appears in the lower right of the screen. Choices of answers to the examination question are identified as A, B, C or D. You must indicate your choice by either typing in the letter in the response box in the lower left portion of the computer screen or clicking on the option using the mouse. To change your answer, enter a different option by typing in the letter in the box or by clicking on the option using the mouse. You may change your answer as many times as you wish during the course of the examination.

To move to the next question, click on the forward arrow (>) in the lower right portion of the screen. This action will move you forward through the examination question by question. If you wish to review any question or questions, click the backward arrow (<) or use the left arrow key to move backward through the examination.

An examination question may be left unanswered and be returned to later in the examination session. Questions may also be bookmarked for later review by clicking in the blank square to the right of the Time button. Click on the double arrows (>>) to advance to the next unanswered or bookmarked question on the examination. To identify all unanswered and bookmarked questions, repeatedly click on the double arrows (>>). When the examination is completed, the number of examination questions answered is reported. If all questions have not been answered and there is time remaining, return to the examination and answer those questions. Be sure to provide an answer for each examination question before ending the examination. There is no penalty for guessing.

Candidate Comments

During the examination, you may make comments for any question by clicking on the Comment button to the left of the Time button. This opens a dialogue box where comments may be entered. Comments will be reviewed, but individual responses will not be provided.

Scores Canceled by ABTC

PSI is obligated to ABTC to report scores that accurately reflect the performance of each candidate. For this reason, PSI maintains examination administration and security standards that are designed to assure all candidates are provided the same opportunity to demonstrate their competencies and to prevent some candidates from gaining an unfair advantage over others due to examination irregularities or misconduct. PSI routinely reviews irregularities and examination scores suspected of or resulting from unusual or non-standard circumstances and reports these to ABTC.

ABTC reserves the right to withhold certification or cancel examination scores if, in its sole opinion, there is reason to question their validity. Scores considered for cancellation by ABTC maybe grouped into two categories:

1. Suspected candidate misconduct. In such cases, ABTC may initially withhold examination scores and notify the candidate to inform them they have the opportunity to provide additional information. ABTC may also undertake a confidential review of the circumstances giving rise to the questionable score validity. If determined that there is sufficient cause to question score validity, ABTC may cancel the score(s), withhold certification, and inform the involved parties.

2. Irregularities. Scores may be withheld and/or cancelled because of circumstances beyond the candidate's control, such as faulty examination materials or improper timing. In such cases, candidates will be informed and offered an opportunity to retake the examination if ABTC determines that scores must be canceled.

Receiving Your Score Report

After you finish the examination, you are asked to complete a short evaluation of your testing experience. You will be instructed to report to the Test Center Supervisor to receive your printed score report. Scores are not reported over the telephone, by electronic mail or by facsimile.

Your score report will indicate a "pass" or "fail." Additional detail is provided in the form of raw scores by content category. A raw score is the number of questions you answered correctly. Examination scores are reported as raw scores and scaled scores. A RAW SCORE is the number of correctly answered questions. A SCALED SCORE is statistically derived from the raw score because different examination forms may vary slightly in difficulty, it is desirable to report examination scores as SCALED scores to ensure that all candidates have demonstrated the same level of competence regardless of which form of the examination they took.

Pass-fail decisions are based on overall performance on the exam and not on individual content categories. The examination is designed to provide a consistent and precise determination of your overall performance and is not designed to provide complete information regarding your performance in each content category.

You should remember that areas with a larger number of items (questions) will affect the overall score more than areas with a fewer number of items. The precision and consistency of scores diminishes with fewer items, and therefore, sub-score should be interpreted with caution, especially those that correspond to content categories with very few items.

Score Verification

Candidates who wish to have results confirmed by the ABTC testing company, may request a verification of score. Please note that the verification process is solely meant to verify the accuracy of your exam result. Raw or scaled scores will not be provided.

The deadline for requesting a score verification is 30 days after the date of the candidate's exam administration. A written request must be submitted to PSI via USPS mail:

PSI
18000 W. 105th St.
Olathe, KS 66061

The request must include candidate name, email, exam date, location, and $25 fee to process (money order only). Once received in-house processing is a minimum of 2 weeks for a response through the mail.

Duplicate Score Reports

You may purchase additional copies of your score report at a cost of $25 per copy. Requests must be submitted to PSI, in writing, within 12 months following the examination. The request must include your name, address, telephone number, date of examination and examination taken. Submit this information with the required fee payable to PSI Services Inc. 18000 W. 105th St., Olathe, KS 66061

Duplicate score reports will be mailed within approximately five business days after receipt of the request.

If You Pass the Examination

When you pass an ABTC examination for the first time, you will be awarded the appropriate credential from ABTC within 30 to 45 days of passing the examination. Your certification is valid for a period of three years as indicated on your certificate.

If You Do Not Pass the Examination

An unsuccessful candidate may retake the exam 90 days after the first exam attempt. Retest candidates may not test more than once on any one form. A subsequent retest must be on an alternate exam form. A retake link to the Certification Management System (CMS) platform is available on the ABTC website for retake applications. An application must be completed and fees submitted before the retake can be approved.

All exam candidates will be subject to a three-attempt rule. After a failed exam, applicants can sit for two successive exams. A candidate who has failed the exam on the third attempt will be required to complete 20 Category 1 CEPTCs before reapplication. *A "no show" or withdrawal for any exam administration will not be counted as an attempt*.

Recertification with ABTC

Certification is a method of assuring the public that an individual remains competent to practice one's profession. The credential symbolizes the ability to meet the profession's established standards of practice. For ABTC, assuring the competence of a practitioner upon entry into the transplant profession is not enough. Rapid changes in methodology and technology may render a professional incompetent if he or she fails to keep current with new developments in the field.

In 1988, ABTC established a recertification policy as a mechanism for certificants to demonstrate their continued competence to their peers, employers, and patients.

The policy requires recertification every three years and provides a choice between two routes for recertification: submission of continuing education documentation that meets specified requirements or re-examination. The recertification fee for maintaining a single certification is $395. The fee for maintaining dual or more certifications is $495. For more details, visit the ABTC website at *www.ABTC.net*.

Certificant Responsibilities

To maintain the integrity of ABTC® certifications, only those who hold the certification in good standing may use the designation, including trademarks. Your certifications must remain current and not elapsed to stay in good standing. To maintain currency, see CEPTC*s https://abtc.net/certified-professionals/continued-education*

An exception is made for retired people; they may use Name, Sustainer, and the exam certification. (International Society of Certification (ICE). 2019. The ICE Handbook (3rd ed.). Institute for Credentialing Excellence p. 152.)

Release of Information

While a listing of credentialed individuals will be maintained and distributed by ABTC, your individual examination results will not be released to any third party, by either ABTC or PSI, without your written consent.

Examination Structure and Content

To begin your preparation in an informed and organized manner, you should know what to expect from the actual examination in terms of the content areas and performance levels tested. A job analysis study is conducted by ABTC to determine the appropriate content of each of its examinations, in accordance with the "Standards for Educational and Psychological Testing" (American Educational Research Association, American Psychological Association, and National Council on Measurement in Education,1999)as well as the "Uniform Guidelines on Employee Selection Procedures" (Equal Employment Opportunity Commission, 1978).

Participants in each analysis study constituted a representative group of practitioners involved in the practice of vascular organ transplantation. The CCTN® examination included international practitioners on both the committee and in the survey respondents. Task ratings these practitioners provided were objectively analyzed to determine the subset of tasks listed on the job analysis survey that were (1) at

least very important to practice, and (2) extensively performed by practitioners. Analyses resulted in the determination of criterion-referenced specifications for ABTC certification examinations.

About the Examinations

The examinations include questions on competencies that a minimally competent first year transplant professional should be knowledgeable about to fulfill the job requirements.

Who Writes the Examination Items?

Once the examination topics have been identified, any certified transplant professional can write and submit items for the examination committee (e.g., those certified as CPTC® may submit test questions to the Procurement examination committee). All examination committee members must be certified in that respective category.

All committee members are trained to write examination questions that are designed to measure your competency, rather than trick you.

Once the questions are written and submitted, the committee reviews them to ensure that they are referenced properly, considering any international differences in measurement reporting for the CCTN®® examination. The questions are then tested by including them as pretest items in actual examinations given to candidates. These pretest items do not count toward candidates' final scores. The performance statistics for the pretest items are reviewed by specialist in the psychology and measurements associated with examination results. Any pretest item that is too hard (too many candidates fail the question), too easy (all candidates pass the question), or appears to be tricky is removed and rewritten. A large bank of questions has been developed over many years by this method, and this bank is used to create each examination. Multiple versions of the examination exist, which means that the examination you take may not be identical to the one taken by another person.

Scope of the Examinations

CCTC® Examination

The scope of the CCTC® examination will include all aspects of transplant coordination and/or care as it relates to the care of the following vascular organs: kidney, pancreas, liver, lung, intestine, heart, and transplants involving multiple organs at once. Clinical candidates may have experience with only one organ but are expected to be aware of the other organ transplantation practices and should have a basic understanding of principles related to both adult and pediatric transplant recipients.

Overall, the examination questions represent standard practices and are not center-specific. Approximately 50 percent of the examination questions on any one examination form are written such that they are general in nature (i.e., nonspecific to any one solid organ), while the remainder of the examination includes representative items relating to specific organs.

CPTC® Examination

The scope of the CPTC® examination includes all aspects of the organ donation process and/or procurement as it relates to the areas of consent, management, organ allocation as well as the actual procurement. Candidates should be aware of all aspects of organ donation, procurement, and practices in both the pediatric and adult organ donor populations.

Overall, the examination questions represent standard practices and are not OPO-specific. The examination content ranges from general areas of the donor process or procurement as well as more specific questions. (i.e., policies).

CTP® Examination

The scope of the CTP® examination includes all aspects of the organ preservation process as it relates to the areas of professional practices, organ recovery, aseptic technique, organ preservation, specimen collection, and packing, labeling, and shipping. Candidates should be aware of all aspects of organ preservation practices in both the pediatric and adult organ donor populations as well as organ anatomy. The examination will include UNOS/OPTN organ allocation policy. Candidates should be aware of organ procurement practices as it relates to consent.

CCTN® Examination

The CCTN® examination includes questions on topics that allow for an individual to demonstrate an achieved level of competence in the field of transplant nursing.

The scope of the examination will include all aspects of transplant nursing including pre- and post-transplant care, living donation, pharmacology, patient/family education, and professional responsibilities of the transplant nurse. Transplant nurse candidates may have experience with only one organ but are expected to be aware of other organ transplantation practices and should understand principles related to both adult and pediatric recipients. Refer to specifications provided in the detailed content outline for the number of general items about no specific type of transplant and items about specific transplant types.

CTFC Examination

The CTFC examination reference guide is available at the end of this handbook.

Cut Score Study Methodology

The judges serving on the standard-setting study panel were selected by ABTC, all of whom were deemed to possess subject matter expertise. They were selected to provide for an appropriate balance on potentially relevant professional characteristics, such as area of special expertise, practice setting, and geographical distribution.

The judges participated in a standard-setting study that consisted of the following three major steps:

1. Definition of Minimum Competence

2. Rating of Examination Items

3. Consideration of Empirical Data

Definition of Minimum Competence

In preparation of the rating process, a discussion regarding the definition of a minimally competent practitioner (MCP) was facilitated. An MCP is described as an individual who has enough knowledge to practice safely and competently but does not demonstrate the knowledge level to be considered an expert.

Rating of Examination Items

Judges were then trained on the rating process. Central to this process is the notion that each rating is provided individually by each rater and reflects the answer to this question: What percentage of MCPs do you expect will answer this item correctly?

The judges were shown each item one at a time and instructed to provide a rating for each item (round 1 rating) after reading the stem and the response options. Judges then recorded their ratings in a spreadsheet.

Consideration of Empirical Data

Following the initial rating for each item, the answer key and p-value were presented so that the judges could re-evaluate their thought process and revise their ratings (round 2 rating). For example, the judges were specifically advised to consider the possibility that their ratings might be too high on items that they answered incorrectly when the initial ratings were recorded or if their expectations of performance for MCPs were significantly different from the p-value, which represents the performance of a sample of examinees who represent all levels of competency and performance. Judges then recorded their round 2 ratings in the same spreadsheet.

Ratings were then collected from the raters, and items for which the average rating was higher than the p-value by 5 points or more were identified as well as those in which the highest and lowest ratings differed by 40 points or more. The judges discussed these items to determine why their expectations differed significantly from the difficulty for all examinees or from each other. All raters were then given the opportunity to revise their ratings (round 3 rating) for the subset of items identified, following this discussion. Judges called out their round 3 ratings for this subset of items and the facilitator entered those ratings on screen

Exam Development

Each ABTC examination continues to be updated for relevance to current practice through a Job Analysis Survey conducted at a minimum of every five (5) years in conjunction with the ABTC test vendor, PSI. This methodology is designed to meet stringent certification industry standards and recognized best practice guidelines. A demographically diverse group of Subject Matter Experts review and make recommendations for revisions to current test domain categories. An electronic survey based on the work of the task group is distributed to all certificants and practitioners in the particular field. Volunteer subject matter experts use this data to identify areas of knowledge for testing from the content domains identified and write exam questions to target those areas.

As required by best practices, following the conduct of a Job Task Analysis a Standard Setting Study is conducted to determine a passing score. The passing score identifies what the minimally qualified candidate will know. Each candidate's ability is measured against the determined cut (or passing) score.

Detailed Content Outline

The Detailed Content Outline developed from the job task analysis lists each task that MAY be tested content area and performance level. Every task listed for a particular content area may not necessarily be tested on each form of the examination. Rather, these tasks are representatively sampled such that the test specifications are met

These examinations are specific to VASCULAR ORGAN transplantation, and as such, the tasks listed should be interpreted to apply to vascular organs as defined by ABTC. ABTC's definition of a "vascular organ" is as follows:

A part of the body having a special function; remains viable only when supported by adequate blood flow to and through intrinsic blood vessels. For the purposes of these examinations, the following organs are included: heart, lung, liver, kidney, pancreas, and intestine.

Detailed Content Online for the Certified Clinical Transplant Coordinator (CCTC®) Examination

ABTC **American Board for Transplant Certification**

	Total
Certified Clinical Transplant Coordinator (CCTC®) **Examination Specifications***	
1. Evaluation and Preparation for Transplant	**73**
A. Education	23

1.   Instruct on risks, benefits, alternatives of transplantation and live donation

2.   Review indications and contraindications of transplantation and live donation

3.   Emphasize the importance of commitment for the candidate to long-term post-transplant follow-up

4.   Discuss with the potential living donor and/or transplant candidate the

　　a.   evaluation/selection process (e.g., medical, psychosocial, financial)

　　b.   donor selection criteria (e.g., PHS increased risk, Donation after Circulatory Death)

　　c.   transplant recipient and living donor surgical procedures

　　d.   potential transplant drug regimen and effects

　　e.   signs/symptoms of infection and organ rejection

　　f.   diagnostic surveillance of rejection and infection

　　g.   potential short-term and long-term complications

　　h.   patient and graft survival

　　i.   donor/recipient confidentiality

5.   Respond to the individual educational needs of the living donor, candidate, and support system (e.g., age, culture, cognitive)

ABTC American Board for Transplant Certification

Certified Clinical Transplant Coordinator (CCTC®)

Examination Specifications*

	Total
B. Data Collection and Evaluation, and Recommendations	10

    1.   Obtain and review

        a.   medical and surgical history, and physical examination

        b.   laboratory data (e.g., histocompatibility, serology)

        c.   diagnostic studies (e.g., radiology, pathology)

    2.   Recommend consultations (e.g., infectious disease, psychosocial, dietitian)

	Total
C. Suitability Assessment and Determination of the Potential Transplant Candidate and Living Donor	12

    1.   Identify multi-disciplinary recommendations (e.g., psychosocial, social work, dietitian, pharmacology, financial)

    2.   Assess donor and/or candidate suitability and adherence

    3.   Present findings and make recommendations to the transplant team regarding donor and/or candidate suitability

    4.   Communicate the team's recommendations to a candidate and/or living donor (e.g., behavior modification, social/financial issues)

    5.   Facilitate

        a.   additional procedures and tests based on the team's recommendations (e.g., CT scan, cholecystectomy, arteriogram)

        b.   coordination of care for additional testing or protocols as indicated (e.g., PRA desensitization, incompatible ABO)

American Board for Transplant Certification

ABTC

	Total
Certified Clinical Transplant Coordinator (CCTC®) **Examination Specifications***	
D. Wait List Management	13

      1.   List a candidate per OPTN policies

      2.   Verify listing documentation for accuracy

      3.   Maintain effective communication with candidate and local care provider

      4.   Maintain listing status per OPTN policies

          a.   document and record updated diagnostic and lab results (e.g., PRA, MELD, weight variance)

          b.   recognize potential problems and/or changes in eligibility criteria during the waiting period

          c.   amend listing status as indicated

      5.   Remove candidate or recipient from wait list per OPTN policies

E. Candidate/Deceased Donor Selection Criteria:	8

      1.   Identify exclusion criteria for potential donor organs and candidates

      2.   Communicate donor information (e.g., demographics, ABO, anatomy, organ condition, medical and social history)

      3.   Review candidate's current medical condition and crossmatch status with physicians

      4.   Verify candidate's acceptance of a donor (e.g., PHS increased risk, Donation after Circulatory Death)

ABTC

American Board for Transplant Certification

	Total
Certified Clinical Transplant Coordinator (CCTC®) **Examination Specifications***	
F. Living Donor and Candidate Preoperative Care	7
1. Notify staff in appropriate departments (e.g., pre-operative area, ICU, blood bank, admissions, research) of a potential transplant 2. Facilitate preoperative procedures (e.g., dialysis, final crossmatch, pre-op orders) 3. Inform the living donor and/or candidate (e.g., timing of surgical procedures, surgical consent)	
2. Post-Transplant Care	**77**
A. Education	26

1.   Educate transplant recipient and support system about
 	
     a.   the transplant drug regimen and effects
 	
     b.   applicable self-monitoring data (e.g., temperature, BP, weight)
 	
     c.   signs and symptoms of infection and organ rejection
 	
     d.   diagnostic surveillance of rejection and infection
 	
     e.   potential short-term and long-term complications
 	
     f.   transplant team personnel and roles
 	
     g.   available support services (e.g., social worker, patient assistance, home health nursing, pharmacy)
 	
     h.   recipient and graft survival
 	
     i. long-term health maintenance (e.g., cancer screening, bone health, behavior modification)	

ABTC

American Board for
Transplant Certification

Total

Certified Clinical Transplant Coordinator (CCTC®)

Examination Specifications*

    j.   strategies involving health promotion, illness prevention, and injury (e.g., cancer screening, bone health, behavior modification)

    k.   adherence to follow-up visits and laboratory studies

    l.   reporting abnormalities to transplant center/primary care provider

  2.   Educate living donor and support system about

    a.   immediate postsurgical care (e.g., wound care, activity limitations, pain management)

    b.   reporting abnormalities to transplant center/primary care provider

    c.   adherence to follow-up visits and laboratory studies

    d.   follow-up of required UNOS data (e.g., vital signs, laboratory results, demographics, health status)

B.   Postoperative Monitoring, Evaluation, and Reporting   51

  1.   Evaluate abnormalities in

    a.   pertinent physical examination findings

    b.   laboratory values

    c.   diagnostic tests

  2.   Assess for complications

    a.   surgical

    b.   medical

    c.   immunologic

ABTC
American Board for
Transplant Certification

Total

Certified Clinical Transplant Coordinator (CCTC®)

Examination Specifications*

    d.   psychosocial issues

    e.   adverse effects of the drug regimen (e.g., drug interaction, poly-pharmacy risk)

    f.   long-term

3.   Consult with the recipient's healthcare team to determine interventions for complications

4.   Facilitate

    a.   additional laboratory and/or diagnostic studies

    b.   follow-up clinic visits

    c.   consultation (e.g., social work, psychologist)

    d.   outpatient therapies

    e.   hospital admission

    f.   discharge medications and renewals (e.g., prior authorization forms, medicine change for insurance reasons)

    g.   the patient's transition between healthcare settings (e.g., primary care provider, case managers)

5.   Refer recipient for emergency evaluation and treatment

6.   Report required data to the OPTN / UNET

7.   Evaluate recipient's adherence with the treatment regimen

8.   Reinforce need for health maintenance (e.g., cancer screening, behavior modification)

9.   Facilitate a return to optimal health status (e.g., work, school)

American Board for Transplant Certification

Total

Certified Clinical Transplant Coordinator (CCTC®)

Examination Specifications*

Totals	**150**

* Each test form will include 1 set of 25 unscored pretest items in addition to the 150 scored items.
  3 hours of testing time.
  Initial base form passing point by Angoff method to be approved by the ABTC.
  Future passing points established through pre-equating.

In addition to the content and cognitive level specifications describe above, each multiple-choice item will be associated with one of the following organ specifications:

Secondary specifications for CCTC®

Organ Specs	# items
Kidney	31
Liver	18
Heart	8
Lung	10
Kidney-pancreas	3
Pancreas	2
Intestine	1
Heart-lung	2
Organ Specific Sub Total	75
General Sub Total	75
Total	**150**

	Cognitive Level			
Certified Procurement Transplant Coordinators (CPTC) Examination Content Outline*	Recall	Application	Analysis	Total
1. Donation Process Support	5	8	2	15

A. Predonation Activities
    1. Establish clinical triggers to encourage timely referrals of potential donors from each hospital
    2. Develop collaborative relationships with key hospital staff and physicians at all levels that impact the donation process
    3. Follow up routinely on each potential referral
    4. Provide hospital-based education in collaboration with hospital development staff
  B. Postauthorization Activities
    1. Refer to hospital profiles to identify key information in preparation for starting a case (for example, donation champions, policies)
    2. Determine the impact of other agencies on the donation process (for example, eye/tissue bank, other OPOs, medical examiner/coroner)
    3. Contribute to a formal process for timely follow-up communication (for example, post-donor case conference, unit visits, evaluation forms)				

2. Donor Identification	10	16	4	30

A. Referral Management
    1. Evaluate the pre-hospital and hospital course (for example, down-time, injuries, hemodynamics, organ function, infection status)
    2. Determine donor registry status or advanced directives
    3. Inform hospital staff of donor designation and subsequent donation process
    4. Assess family dynamics, availability of hospital support system, and family needs (for example, cultural, religious, physical, emotional, informational)
    5. Support hospital personnel throughout the donation process
    6. Record the outcome of donor referral
  B. Donor Determination
    1. Confirm a plan of care that includes a decision to withdraw support (for example, patient, family, physician)
    2. Determine suitability for DCD
    3. Support the family throughout the donation process
    4. Confirm legal and hospital requirements for death declaration				

	Cognitive Level			
Certified Procurement Transplant Coordinators (CPTC) Examination Content Outline* (American Board for Transplant Certification)	Recall	Application	Analysis	Total

C. Authorization
    1. Identify
        a. the legal next of kin in the absence of a donor designation to obtain authorization
        b. key individuals involved in authorization and end-of-life decisions (for example, family, friends, clergy, physician)
    2. Coordinate the authorization process in collaboration with hospital staff
    3. Assess a family's understanding of brain death
    4. Inform a family of donor designation and subsequent donation process
    5. Coordinate the donation request by facilitating an informed decision
    6. Document the outcome of the authorization conversation
    7. Confirm a properly executed authorization form (for example, next of kin, highest priority of authorization, directed donation) or donor disclosure form (for example, donor registry card, signed donor card , document of gift)
    8. Complete and interpret the UDRAI (Uniform Donor Risk Assessment Interview)
    9. Determine increased risk status (USPHS criteria)
    10. Identify OPO financial responsibility (for example, hospital charges)				

3. Donor Management	15	25	27	67

A. Assessment
    1. Register a donor with OPTN
    2. Perform a bedside assessment (for example, ventilator settings, hemodynamics, physical findings, neurologic examination)
    3. Initiate standing orders
    4. Initiate the confidential donor record (for example, ABO verifications, serologies/infectious disease testing, hemodilution status)
    5. Document the pre-hospital and hospital course (for example, down-time, injuries, hemodynamics, infection status)				

	Cognitive Level			
ABTC American Board for Transplant Certification **Certified Procurement Transplant Coordinators (CPTC) Examination Content Outline***	**Recall**	**Application**	**Analysis**	**Total**

6. Obtain samples for:
  a. HLA / tissue-typing
  b. Serologies / Infectious Disease Testing
  c. laboratory values (for example, CBC, electrolytes, culture results, organ function tests)
7. Evaluate diagnostic procedure results (for example, cardiac, pulmonary, pathology)
8. Assess suitability of organs for donation
B. Interventions
1. Initiate interventions and/or modify orders to optimize organ viability (for example, ventilator settings, infusions, pharmacological support)
2. Optimize ongoing donor hemodynamic and pulmonary stability
3. Treat acute and chronic clinical abnormalities (donor management guidelines)				

4. Allocation and Recovery	**10**	**23**	**5**	**38**
A. Allocation 1. Determine donor type (BD vs. DCD) 2. Identify donor allocation criteria (for example, KDPI, 2 -for- 1 Kidney Donors) 3. Disclose current and past medical and behavioral history 4. Adhere to OPTN allocation policies 5. Complete required documentation (for example, match-run list, Deceased Donor Registration) 6. Coordinate OR times 7. Arrange for transportation (for example, personnel, organs) 8. Provide required documentation to agencies (for example, transplant centers, OPTN, tissue recovery) 9. Place organ(s) for research and education **B. Organ Recovery and Preservation** 1. Ensure necessary surgical personnel and supplies are present 2. Verify recovery surgeon credentials (for example, ACIN) 3. Maintain donor stability during transport to the OR (for example, IV line patency, oxygenation, vital signs) 4. Support OR and anesthesia staff (for example, management and documentation guidelines, scrub and assist during recovery)				

ABTC American Board for Transplant Certification **Certified Procurement Transplant Coordinators (CPTC) Examination Content Outline**[*]	Cognitive Level			Total
	Recall	Application	Analysis	
5. Coordinate the activity and interaction of the recovery team(s)				
6. Ensure aseptic technique is used throughout the donor's time in the OR (for example, donor prep, organ packaging, preservation)				
7. Facilitate organ preservation (for example, solutions, equipment, ice, pulsatile preservation)				
8. Document data associated with organ recovery (for example, anatomy, flush, cross-clamp, warm time, biopsies, operative note)				
9. Ensure all organs and specimens are obtained, packaged, and labeled in accordance with current OPTN policies				
10. Complete post-mortem care				
11. Notify agencies and individuals of case completion (for example, tissue agency, family, funeral home, medical examiner/coroner)				
TOTAL	40	72	38	150

---

[*] Each test form will include 25 unscored pretest items in addition to the 150 scored items.
3 hours of testing time.
Initial base form passing point by Angoff method to be approved by ABTC.
Future passing points established through pre-equating.

Detailed Content Outline for the Certified Transplant Preservationist (CTP®) Examination

Open cells show an examination could include items from indicated cognitive levels.　　　　Items

Shaded cells prevent appearance of items on examinations.	Recall	Application	Analysis	Total
I. Professional Practice	4	6	0	10
A. Responsibilities	2	3	0	5
1. Identify roles and responsibilities of OPO, OPO staff, and transplant center staff in organ donation				
2. Adhere to all regulatory requirements				
B. Professional Conduct	2	3	0	5
1. Maintain donor/recipient confidentiality throughout the entire donation process				
2. Maintain appropriate behavior in accordance with established codes of conduct				
II. Organ Recovery	6	15	4	25
A. Preoperative Phase	3	6	1	10
1. Communicate with on-site OPO staff				
2. Review the scope of the recovery process (i.e., consent, research, allocated organs)				
3. Prepare supplies to bring to the donor hospital				
4. Instruct hospital staff on their roles during the recovery process				
5. Verify donor identification and documentation				
6. Ensure that appropriate staff are on-site and readily available				
7. Arrange for supplies at the recovery hospital				
8. Ensure donor is properly positioned for the procedure				
9. Obtain necessary blood samples				
B. Intraoperative Phase	3	9	3	15
1. Prepare preservation solution				
2. Set up back table with supplies				
3. Prepare flush lines				
4. Communicate with recovery staff (e.g., venting, donor stability, perfusion systems, flush status)				
5. Ensure medications have been administered				
6. Prepare for cannulation and cross-clamp				
7. Establish control for flush				
8. Ensure adequate suction is available				
9. Document critical information (e.g., Heparin administration, cross-clamp, warm ischemic time, anatomy, flush characteristics)				
10. Identify abnormalities in the recovery process				
11. Coordinate the recovery of biopsies				
12. Coordinate lymph node, spleen, and vessel recovery				
III. Aseptic Technique	4	6	0	10
A. Gowning and Gloving	3	4	0	7
1. Verify that all recovery staff are properly attired				
2. Utilize proper personal protective equipment (PPE)				
3. Perform standardized gowning technique				
4. Perform standardized gloving technique				
5. Perform standardized scrub technique				
B. Back Table Setup	1	2	0	3
1. Create a sterile field				
2. Introduce sterile supplies onto field				
3. Decant solutions				
IV. Organ Preservation	8	12	0	20
A. Heart, Lungs, Liver, Kidneys, Pancreas	6	9	0	15
1. Anatomy				
a) Identify anatomic structures (e.g., inflow, outflow)				
b) Document aberrant findings				

Shaded cells prevent appearance of items on examinations.	Recall	Application	Analysis	Total
2. Recovery Technique				
a) Identify most common cannulation sites				
b) Identify most common cross-clamp sites				
B. Solutions	2	3	0	5
1. Maintain temperature and sterility				
2. Regulate flow pressure				
3. Assess for stability				
V. SpecimenCollection	3	6	1	10
A. Blood	1	1	0	2
1. Select proper type and quantity of blood tubes				
2. Facilitate specimen collection				
3. Label tubes with standard information				
B. Lymph Nodes and Spleen	1	2	0	3
1. Identify quantity of each specimen needed				
2. Facilitate specimen collection				
3. Store in preservative medium				
4. Label containers with standard information				
C. Vessels	1	3	1	5
1. Identify proper vessels to be recovered				
2. Facilitate vessel collection				
3. Store in preservation solution				
4. Label containers with standard information				
VI. Packaging, Labeling, and Shipping	10	15	0	25
A. Labeling Requirements	5	7	0	12
1. Prepare and verify accuracy of labels				
2. Follow standard procedures when affixing labels to organs				
3. Affix labels to shipping containers				
B. Packaging Requirements	5	8	0	13
1. Utilize standardized packaging materials (e.g., disposable transport boxes, coolers, hard containers)				
2. Maintain proper insulation and temperature				
3. Include required documentation				
4. Include required specimens				
5. Verify package contents				
6. Seal packaging containers				
Totals	35	60	5	100

CCTN® Examination Content Outline

		% of Items*	# of Items
1	**Pre-transplantation Care**	**9%**	**13**
1A	**Evaluate End-Stage Organ Failure**	**1%**	**1**
1A1	History, physical assessment, and current treatments		
1A2	Vital signs and / or hemodynamic parameters		
1A3	Lab values		
1A4	Diagnostic tests		
1A5	Specialist teams		
1B	**Monitor a Patient Awaiting Transplantation**	**1%**	**2**
1B1	Kidney		
1B2	Liver		
1B3	Pancreas		
1B4	Heart		
1B5	Lung		
1B6	Intestines		
1C	**Provide Education to a Patient Awaiting Transplantation**	**1%**	**2**
1C1	Organ matching (e.g., HLA, living donor)		
1C2	Wait list status (e.g., MELD/PELD, Lung Allocation Score, mechanical circulatory support, EPTS/KDPI)		
1C3	Postoperative course (e.g., lines, incision care, pain management)		
1C4	Explanation of preoperative tests / procedures		
1C5	Medications and side effects		
1C6	Immunizations		

		% of Items*	# of Items
1C7	Health maintenance (e.g., physical activity, dental, eye, GYN, annual cancer screening, etc.)		
1D	**Provide Support for Psychosocial Issues**	**3%**	**4**
1D1	Changes in lifestyle and body image		
1D2	Adherence to the plan of care (e.g., consequences of non-adherence)		
1D3	Coping strategies while waiting		
1D4	Financial implications		
1D5	Support systems		
1D6	Cultural / religious issues		
1D7	Advance care planning / palliative care (e.g., POA, end- of-life, ethics, consults)		
1D8	Advocating for patient and support system/caregiver in decision making		
1E	**Prepare Pre-Transplant Patient for Surgery**	**3%**	**4**
1E1	Administer transplant-related medications as ordered		
1E2	Implement desensitization procedures		
1E3	Ensure consent for surgery has been obtained		
1E4	Ensure relevant tests/labs have been obtained and reviewed		
1E5	Document pre-transplant surgery checklist		
2	**Care Immediately Post-transplantation**	**26%**	**39**
2A	**Evaluate Objective Criteria**	**7%**	**11**
2A1	Vital signs		
2A2	Hemodynamic monitoring		
2A3	Cardiac monitoring		
2A4	Tubes, lines, wires, and drains (e.g., t-tubes, VAD lines, pumps)		
2A5	Pain management		

		% of Items*	# of Items
2A6	Neurological status		
2A7	Volume status (e.g., intake / output, weight)		
2A8	Wounds		
2B	**Monitor Laboratory Results**	**7%**	**11**
2B1	Evidence of organ function		
2B1a	Kidney		
2B1b	Liver		
2B1c	Pancreas		
2B1d	Heart		
2B1e	Lung		
2B1f	Intestines		
2B2	Evidence of other postoperative complications		
2B2a	Hematological (e.g., bleeding, clotting)		
2B2b	Infection		
2B2c	Fluid/electrolyte imbalance		
2B2d	Rejection		
2C	**Assess for Complications, Intervene, or Evaluate response to Intervention**	**8%**	**12**
2C1	General		
2C1a	Impaired wound healing		
2C1b	Hypoglycemia and hyperglycemia		
2C1c	Hypotension and hypertension		
2C1d	Altered bowel function		
2C1e	Altered nutrition		
2C1f	Altered mobility / self-care deficit		

		% of Items*	# of Items
2C1g	Respiratory		
2C1h	Neurological (e.g., postop delirium)		
2C1i	Tubes, lines, and wires (e.g., malfunctions with t-tubes, VAD lines, pumps)		
2C1j	Cardiac		
2C2	Organ specific		
2C2a	Kidney (e.g., clots, leaks, dialysis therapy, decrease in urine output)		
2C2b	Liver (e.g., renal dysfunction, thrombosis, bile duct complications, effusions, cholestasis)		
2C2c	Pancreas (e.g., pancreatitis, thrombosis, cystitis, hyperglycemia)		
2C2d	Heart (e.g., arrhythmias, ventricular failure, tamponade, pacemaker)		
2C2e	Lung (e.g., pneumothorax, effusion, stenosis)		
2C2f	Intestines (e.g., stoma output)		
2D	**Psychological Support**	**3%**	**5**
2D1	Pain control		
2D2	Psychological support (e.g., appreciation, enhanced therapeutic communication, organ graft failure)		
2D3	Complications		
3	**Transplantation Management**	**26%**	**39**
3A	**Evaluate Graft Function**	**7%**	**10**
3A1	Graft dysfunction (primary graft non-function, ATN, reperfusion injury)		
3A2	Rejection surveillance (e.g., signs and symptoms of cellular rejection and antibody-mediated rejection, diagnostic testing, post-biopsy monitoring)		
3A2a	Kidney		

		% of Items*	# of Items
3A2b	Liver		
3A2c	Pancreas		
3A2d	Heart		
3A2e	Lung		
3A2f	Intestines		
3A3	Rejection treatment		
3A3a	Kidney		
3A3b	Liver		
3A3c	Pancreas		
3A3d	Heart		
3A3e	Lung		
3A3f	Intestines		
3A4	Graft function education		
3B	**Recognize Signs and Symptoms of Infections**	**7%**	**10**
3B1	Viral		
3B2	Bacterial		
3B3	Fungal		
3B4	Other endemic infections (e.g., protozoal, parasites)		
3C	**Implement Infection Control Measures**	**5%**	**7**
3C1	Implication of donor / recipient viral status (e.g., CMV, EBV, HSV)		
3C2	Pharmacological measures (e.g., medications, immunizations)		
3C3	Non-pharmacological measures (e.g., handwashing, universal precautions, aspergillus precautions)		

		% of Items*	# of Items
3D	**Monitor for Long-Term Complications**	**5%**	**8**
3D1	Acute/chronic rejection		
3D2	Malignancies (e.g., skin cancer, Post-Transplant Lymphoproliferative Disorder)		
3D3	Metabolic disorders (e.g., obesity, diabetes mellitus, dyslipidemia)		
3D4	Chronic kidney disease		
3D5	Cardiovascular disease (e.g., hypertension)		
3D6	Bone disease (e.g., osteoporosis, hypovitamin D, parathyroid, AVN)		
3D7	Transplant specific infections (e.g., BK Viremia)		
3D8	Recurrent primary disease (e.g., IGA nephropathy, GN)		
3E	**Provide Support for Psychosocial Issues**	**3%**	**4**
3E1	Changes in lifestyle and body image		
3E2	Adherence to the plan of care (e.g., consequences of non-adherence, dietary restrictions)		
3E3	Coping strategies and mental health with chronic disease (e.g., intervening for changes in mood, psychosis, anxiety, depression, PTSD)		
3E4	Financial implications		
3E5	Support systems		
3E6	Cultural / religious issues		
3E7	Advance care planning / palliative care (e.g., POA, end-of-life, ethics, consults)		
3E8	Educating recipient and support system/caregiver regarding donor correspondence		
4	**Pharmacological Therapeutics**	**17%**	**26**
4A	**Administer Induction Agents and Immunosuppressive Drugs**	**9%**	**14**
4A1	Indications		

		% of Items*	# of Items
4A2	Side effects		
4A3	Interactions		
4A4	Therapeutic levels		
4A5	Effect on other lab values		
4A6	Safe handling (for staff)		
4B	**Administer Transplant-Related Non-Immunosuppressive Drugs**	**8%**	**12**
4B1	Indications		
4B2	Side effects		
4B3	Interactions		
4B4	Therapeutic levels		
4B5	Effect on other lab values		
5	**Education and Discharge**	**15%**	**23**
5A	**Discharge a Recipient Safely**	**7%**	**11**
5A1	Validating return demonstration and recording of home regimen (e.g., vital signs, intake / output, glucose monitoring)		
5A2	Reinforcing the medication regimen (e.g., dose, frequency, side effects, interactions, medication safety)		
5A3	Reinforcing discharge instructions (e.g., signs and symptoms of infection / rejection, outpatient follow-up, infection control measures, incisional care, dietary restrictions, lab work)		
5B	**Ensure the Recipient Understands the Long-Term Care Plan**	**8%**	**12**
5B1	Immunizations		
5B2	Physical activities		
5B3	Sexuality, pregnancy, and birth control		
5B4	Travel		
5B5	Dietary changes		

		% of Items*	# of Items
5B6	Emergency resources / disaster preparedness		
5B7	Health maintenance (e.g., cancer screening, high-risk behaviors)		
5B8	Return to work / school		
5B9	Animal safety		
6	**Professional Responsibilities**	**7%**	**10**
6A	**Support Transplantation Practices and Education**	**3%**	**4**
6A1	Educate other health care providers, new staff and nursing students, and the general public		
6A2	Participate in quality assurance / performance improvement activities		
6B	**Navigate Ethical/Legal Issues**	**2%**	**3**
6B1	Donor and recipient confidentiality		
6B2	Ethical / moral dilemmas (e.g., discrepancies between personal values and difficult candidate / recipient situations)		
6C	**Articulate Advances in Organ Donation/Transplantation**	**2%**	**3**
6C1	Advocating for living donation (e.g., paired kidney donation)		
6C2	Donation after cardiac death		
6C3	Special donor considerations (e.g., HCV, HIV, en bloc, incarceration)		
		100%	**150**

_____

* Percentages of items may be rounded to the nearest whole number where applicable

Secondary Classifications

Content Domain	Total Items	General	Kidney	Liver	Heart	Lung	Pancreas	Intestine	Multi-organ
1. Pretransplantation Care	13	5-10	2-6	1-3	0-2	0-2	0-1	0-1	0-1
2. Care Immediately Posttransplantation	39	4-8	16-20	4-8	1-3	0-2	0-1	0-1	0-1
3. Transplantation Management	39	11-15	12-16	2-6	0-2	0-2	0-1	0-1	0-1
4. Pharmacological Therapeutics	26	9-23	0-5	0-3	0-1	0-1	0-1	0-1	0-1
5. Education and Discharge	23	10-23	0-5	0-3	0-1	0-1	0-1	0-1	0-1
6. Professional Responsibilities	10	6-10	0-3	0-2	0-1	0-1	0-1	0-1	0-1
Minimums	150	45	30	7	1	0	0	0	0
Maximums	150	89	55	25	10	9	6	6	6

Specifications by Recipient Age

Recipient Age	Items
Pediatric	8
Adult	142
	150

Reference Guide for the
Certified Transplant Financial Coordinator (CTFC) Exam

Mission and Vision

https://tfcassociation.org/

History

https://unos.org/

https://tfcassociation.org/

Introduction to UNOS

https://unos.org/

https://optn.transplant.hrsa.gov/

Foreign National Information

https://optn.transplant.hrsa.gov/

Milestones in Transplant in the US and Canada

https://optn.transplant.hrsa.gov/

https://transplantliving.org/after-the-transplant/preventing-rejection/types-of-immunosuppressants/

Glossary of Terms

https://www.ama-assn.org/

- An Employee's Guide to Health Benefits Under COBRA | U.S. Department of Labor (dol.gov)

https://www.cms.gov/

https://www.cancer.gov/publications/dictionaries/cancer-terms/def/human-leukocyte-antigen

https://www.cms.gov/medicare/coding-billing/medicare-administrative-contractors-macs/whats-mac

https://www.cms.gov/medicare/payment/fee-schedules/dmepos-competitive-bidding

https://www.ehealthinsurance.com/resources/individual-and-family/birthday-rule

https://www.healthcare.gov/glossary/coordination-of-benefits/

https://www.healthcare.gov/glossary/individual-health-insurance-policy/

https://www.hhs.gov/hipaa/for-professionals/breach-notification/index.html

https://www.hhs.gov/hipaa/for-professionals/privacy/laws-regulations/index.html

- medicare.gov
- Transplant Contracting Considerations | The Organ Donation and Transplantation Alliance (organdonationalliance.org

Introduction to ICD-10

- cdc.gov

Frequently Used CPT

https://optn.transplant.hrsa.gov/patients/about-transplantation/the-transplant-team/

https://www.organdonationalliance.org/wp-content/uploads/2020/10/Financial_Brochure_for_Transplant_Candidates.pdf

https://tfcassociation.org/

Transplant Financial Authorization Process

Healthcare Reform Act

- About Our Organization | Be The Match
- Catastrophic health plans | HealthCare.gov
- Health coverage options for incarcerated people | HealthCare.gov
- Health Savings Accounts (HSAs) and Medicare (medicareinteractive.org)

https://www.cms.gov/CCIIO/Resources/Forms-Reports-and-Other-Resources/preexisting
https://www.healthcare.gov/
https://www.hhs.gov/answers/health-insurance-reform/what-is-the-health-insurance-marketplace/index.html

- Summary of the Affordable Care Act | KFF
- The health plan categories: Bronze, Silver, Gold & Platinum | HealthCare.gov
- Health Insurance Portability and Accountability Act of 1996 (HIPAA) | CDC
- What are HSA-eligible plans? | HealthCare.gov

Transplant - Kidney, Heart, Lung, Liver, Bone Marrow, Intestinal

- About Our Organization | Be The Match
- Black Lung Program | U.S. Department of Labor (dol.gov)
- Blood Cancers - Hematology.org
- Ejection Fraction Heart Failure Measurement | American Heart Association
- End-Stage Renal Disease (ESRD) | Medicare

https://bethematchclinical.org/transplant-therapy-and-donor-matching/donor-or-cord-blood-search-process/
https://bloodstemcell.hrsa.gov/about/faqs#:~:text=Bone%20marrow%20donation%20is%20a,done%20in%20an%20outpatient%20clinic.
https://liverfoundation.org/about-your-liver/how-liver-diseases-progress/end-stage-liver-disease/
https://optn.transplant.hrsa.gov/data/allocation-calculators/meld-calculator/
https://unos.org/policy/liver/medical-urgency/
https://www.cancercenter.com/blood-cancers
https://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/downloads/R471pr1.pdf
https://www.medicare.gov/
https://www.medicare.gov/basics/costs/help/drug-costs
https://www.ncbi.nlm.nih.gov/books/NBK538235/
https://www.ncbi.nlm.nih.gov/books/NBK538235/#:~:text=%E2%80%9CGraft%E2%80%9D%20refers%20to%20transplanted%2C,(HCT)%20%5B1%5D.
https://www.nlm.nih.gov/
https://www.uptodate.com/contents/overview-of-pulmonary-function-testing-in-adults

- Learn about the transplant team - OPTN (hrsa.gov)
- Left Ventricular Assist Device (LVAD) | Johns Hopkins Medicine

https://pubmed.ncbi.nlm.nih.gov/31631240/
https://my.clevelandclinic.org/health/treatments/17192-left-ventricular-assist-devices-mechanical-circulatory-support-mcs

- Ventricular assist device (VAD) - Mayo Clinic
- Your Kidneys & How They Work - NIDDK (nih.gov)
- Does Medicare Cover Living Organ Donors? | Medicare & Medicare Advantage Info, Help and Enrollment
- Medicare Part B Immunosuppressive Drug Benefit | CMS
- Quality, Safety & Oversight - Certification & Compliance for Transplant programs | Guidance Portal (hhs.gov)
- Medicare Part D donut hole (coverage gap) (medicareinteractive.org)
- MM11087 (cms.gov)

- Bridge to Transplant and Destination Therapy Strategies in the United States | Thoracic Key
- Dosing and Administration | Mozobil® (plerixafor) injection
- The Small Intestine - Duodenum - Jejunum - Ileum - TeachMeAnatomy
- NCD - Intestinal and Multi-Visceral Transplantation (260.5) (cms.gov)
- Living donation costs - Transplant Living
- Kidney-Pancreas Allocation System Frequently Asked Questions - OPTN (hrsa.gov)
- Bridge to Transplant and Destination Therapy Strategies in the United States | Thoracic Key
- What Is Medicare TrOOP? | True Out-of-Pocket Spending Limit for Prescription Drugs (medicareadvantage.com)

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3879529/
https://bethematchclinical.org/transplant-therapy-and-donor-matching/cell-sources/
https://www.cancer.gov/about-cancer/treatment/types/stem-cell-transplant
https://www.medicare.gov/drug-coverage-part-d/how-to-get-prescription-drug-coverage
https://tfcassociation.org/
https://www.hematology.org/education/patients/blood-cancers
https://optn.transplant.hrsa.gov/patients/about-transplantation/the-transplant-team/

Sample Questions

Three sample questions follow to provide a sample of each of the different types of questions that are presented. These sample questions include one example of each item format described and one example of each of the three performance levels (recall, application, and analysis) on the examination. These sample questions are not intended to be difficult or necessarily reflect the difficulty of the examination. The correct answer is noted by an asterisk.

Sample 1: One best response item format
Performance Level: Recall

The primary purpose of immunosuppressive therapy is to

   A.   prevent postoperative complication.

   B.   * prevent graft rejection.

   C.   increase the circulating white blood cells.
   D.   enhance the function of the patient's native kidneys.

Sample 2: One best response item format
Performance Level: Application

Four weeks following heart transplant, a recipient undergoes an endomyocardial biopsy that shows end arterial thickening, interstitial inflammation, and intravascular coagulation. This biopsy result indicates

   A.   acute cellular rejection

   B.   *humoral rejection.

    C.   normal postoperative changes.

    D.   cytomegalovirus infection.

Sample 3: Complex Multiple-Choice –Element/ phrase combination item format
Performance Level: Analysis

A kidney transplant candidate has congenital uropathy with an ileal conduit. Which of the following would be required pre transplantation to determine ureteral implantation site?

I. IVP

II. Loopogram

III. KUB

IV. Cytometric

A. I and III only

B. I and II only

C. * II and IV only

D. III and IV only

Best Way to Prepare for the Examination

Know what is to be tested.

The examination questions reflect standard transplant practices of a minimally competent first-year transplant professional, within the scope of legally licensed practice. The examinations include topics covering kidney, liver, pancreas, heart, intestine, and lung transplantation. The examinations are not center-specific and do not reflect advanced practice professionals, i.e.: Nurse Practitioners or Physician Assistants.

Use the learning style that is best for you.

Everyone has their own style of learning. Your time will be most effectively spent if you are aware of your own personal learning style. Your learning style may be verbal, so you may want colleagues to quiz you, or consider organizing a study group with others who are taking the exam. Your learning style may be more logic-based, so you may choose to make outlines to go along with the content outline. Visual learners may want to make flashcards of the textbooks reviewed. Kinesthetic learners learn best by touch and feel, so highlighting or marking your books or taking notes as you study may be your best method of learning. Often test-takers use a combination of styles to learn, so plan ahead to give yourself plenty of time, because whichever style you prefer, studying is necessary before you sit for this examination. Use the detailed content outline to plan your examination preparation. Spend plenty of time studying each area and allow extra time studying topics that seem unfamiliar or difficult to you.

References for Study

The reference lists provided here are not intended to be inclusive of all materials that may be useful to you in preparing for the examinations. Rather, it is intended to familiarize you with some representative references that relate to the field of vascular organ transplantation and to provide you with an abbreviated selection of resources from which you may select that are specific to your individual study needs. The references presented are provided only for guidance and do not represent all of the references that may be available for study.

The inclusion of any particular reference does not constitute an endorsement by ABTC or any of its officers or representatives. Additionally, ABTC does not support or endorse any preparatory courses for candidates who take an ABTC examination. Such preparatory courses may not offer or review essential information that may be covered on an ABTC examination.

Suggested Study Tips

- Use the Detailed Content Outline as your subject matter guide.

- Begin studying far enough in advance to avoid undue stress.

- Build up your confidence with practice exams and quizzes

- Practice answering multiple choice and complex multiple-choice questions so that the format is familiar to you.

- Pace yourself studying, perhaps an hour or two each day, so that you are not overwhelmed at the last minute.

- Allow for extra time to be spent on areas that are not part of your daily practice or that are difficult for you.

- Set aside regular time and place for study, preferably in a quiet place, with good lighting, where you will have minimal distractions.

- Study with colleagues who are also preparing for the same exam.

- Do not be afraid to ask for help when you need it. Seek out your best resources for assistance.

- Read, recite, and repeat the materials for the exam, over and over and over.

- The night before the exam briefly reviews your materials.

- Get a goodnights sleep, eat before the exam, and dress comfortably for the testing site.

- Relax.

Suggested References for the Certification Examination for Clinical Transplant Coordinators

1. *Core Curriculum for Transplant Nurses* 2nd Edition). Cupples, S., Lerret, S., McCalmont, V., & Ohler, L., eds. Philadelphia, PA: Wolters Kluwer, 2016.

2. *Transplantation Nursing Secrets.* Sandra Cupples and Linda Ohler, eds. Harley and Belfus, Inc., 2003.

3. Organ Transplantation (2nd Edition). Landes Bioscience, 2003.

4. *A Clinician' s Guide to Donation and Transplantation.* Rudow, D., Ohler, L. and Shafer, T., eds. NATCO, 2006.

5. *Handbook of Kidney Transplantation* (6th Edition). Danovitch, G.M. Philadelphia, PA: Wolters Kluwer, 2017.

6. *Nursing 2020 Drug Handbook*. Philadelphia, PA: Wolters Kluwer.

7. *Mosby's Diagnostic and Laboratory Test Reference* (14th Edition). Pagana, PhD, RN, K.D.; Pagana, MD, FACS, T.J.; & Pagana, MD, FAAEM, T. N. St. Louis, MO: Elsevier, 2019.

8. OPTN/UNOS – https://optn.transplant.hrsa.gov

9. HIPPA Guidelines – https://www.HHS.gov

Suggested References for the Certification Examination for Procurement Transplant Coordinators and Transplant Preservationist

1. Uniform Anatomical Gifts Act 1987.
2. Uniform Determination of Death Act – 1981 & 1985.
3. UNOS Policies and Procedures available via www.unos.org.
4. National Kidney Foundation (NKF) Donor Family Bill of Rights, 1994.
5. National Communication Guidelines Regarding Communication among donor families, transplant candidates/recipients, and health care professionals. NKF July 1997.
6. Critical Care Nurse: *Organ Donation Issue*, American Association of Critical Care Nurses, Vol.19, No. 2, April 1999.
7. The death record review manual from AOPO.
8. Conditions of Participation, current edition.
9. Phillips, M.G. (ed.) *Organ procurement, preservation, and distribution in transplantation, 1996.*
10. Organ and Tissue Donation: A reference guide for clergy – SEOPF and UNOS current edition.
11. *UNOS organ procurement coordinators handbook* 3rd edition, 2000.
12. Klintman, G., Levy M. *Organ Procurement, and preservation* Landes Bioscience Vademecum, Austin Texas, 1999.
13. Warmbrodt, J., et al. *The business of getting referrals: a step-by-step guide for organ procurement professionals.* Warmbrodt Resources, Fairway KS, 1992.
14. *Roles and training in the donation process: a resource guide.* Dept. of Health and Human Services Administration – Health Care Financing Administration, August 2000.
15. *Informed consent in tissue donation: expectations and realities.* Dept. of Health and Human Services – Office of the Inspector General, January 2001.
16. *Non-heart beating organ transplantation practice and protocols.* Institute of Medicine. National Academy Press, Washington DC.
17. The Gallop Organization, Inc. *The American public's attitudes toward organ donation and transplantation, conducted for the partnership for organ donation,* Boston, MA, February 1993.
18. Association of Organ Procurement Organizations Clinical Standards
19. A Clinician's Guide to Donation and Transplantation
    - NATCO, Ludow, Ohler and Shafer
20. Association of Perioperative Nurses – Standards and Guidelines
21. Foundational Perspectives of Organ Donation Textbook, https://www.organdonationalliance.org/resources/foundational-perspectives-of-organ-donation/

Journals and Specific Articles:

Suggested References for the Certification Examination for the Clinical Transplant Nurse

1. *Handbook of Kidney Transplantation* (6th edition). Danovitch, G.M. Lippincott, 2017.
2. *Transplant Nursing: Scope and Standards of Practice,* (2nd Edition). American Nurses Association & International Society of Transplant Nurses, 2016.
3. *Core Curriculum for Transplant Nurses (*
2^{d}Edition). Cupples, S., Lerret, S., McCalmont, V., & Ohler, L., eds. Philadelphia, PA: Wolters Kluwer, 2016.
4. *Mosby's Diagnostic and Laboratory Test Reference* (14th edition). Pagana, PhD, RN, K. D.; Pagana, MD, FACS, T.J.; & Pagana, MD, FAAEM, T. N. St. Louis, MO:Elsevier, 2019.
5. *Nursing 2022 Drug Handbook*. Philadelphia, PA: Wolters Kluwer.
6. *Brunner&Suddarth's Textbook of Medical-*
Surgical Nursing. (15th Edition). Hinkle, J.L. & Cheever, K.H. Philadelphia, PA: Wolters Kluwer, 2021.
7. *Core Curriculum for Medical-Surgical Nursing*
(5th Edition). Craven, H., Pittman, NJ: Academy of Medical-Surgical Nurses, 2016.
8. OPTN/UNOS – https://*optn.transplant.hrsa.gov*