

CANDIDATE HANDBOOK

CCTC
Clinical Transplant Coordinators

CPTC
Procurement Transplant Coordinators

CTP
Transplant Preservationists

CCTN
Clinical Transplant Nurses



American Board for
Transplant Certification

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SECTION I – ADMINISTRATIVE POLICIES AND RULES FOR THE EXAMINATION

Introduction and Purpose

The Candidate Handbook was developed to assist you in preparing for the ABTC Certification Examinations for Transplant Professionals. Our examinations are designed to assess the knowledge and skills of transplant professionals.

The American Board for Transplant Certification is an independent, not for profit organization that was founded in 1988. ABTC is the 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.

Benefits of Certification

You are probably already aware of how much a person must learn to work in this field. ABTC certification is important to your career. Certification offers you a variety of benefits:

- Professional and intellectual growth. In studying for the certification examination, you learn about a wide variety of topics and improve your knowledge of the profession.
- Personal satisfaction. Certified individuals indicate that they feel a sense of pride and satisfaction when they attain certification. Certification is a personal achievement that can boost your self-esteem.
- Patients’ confidence. Your knowledge increases the comfort and confidence of the patients you serve. Certification attests to the transplant community and the public that you have met a standard of competency and possess the necessary knowledge and skills needed to provide quality care for transplant donors and recipients.
- Increased salary. Many transplant centers encourage certification by offering higher salaries to certified employees.
- More job opportunities. Many transplant centers prefer to hire only certified transplant professionals. In these situations, your certification may give you

an advantage over applicants who are not certified. Additionally, certified staff in all specialty fields are required for hospitals wishing to obtain Magnet Status.

This Handbook is designed to help you identify what you have already learned, where you may need to learn more and provide guidance on how to study effectively. While this Handbook cannot give you the answers for the examination, it will tell you about the topics on the examination, describe study tips and strategies to decrease stress and give you sample questions so you will have a better understanding of how the actual examination was developed.

Every year approximately 75 percent of people who take the examinations pass. This statistic does not imply that the examination is easy. People who succeed at this examination are well prepared. This Handbook is designed to help you prepare, so you, too, will succeed at your professional career goal.

Testing Agency

Applied Measurement Professionals, Inc. (AMP) is the professional testing agency contracted by ABTC to assist in the development, administration, scoring, and analysis of ABTC examinations. AMP is a corporation that provides research, development and measurement services to credentialing programs as well as test administration services. AMP processes all ABTC examination applications and reports scores to candidates upon completion of the examination.

Statement of Nondiscrimination

ABTC and AMP do not discriminate among candidates on the basis of age, gender, race, color, religion, national origin, disability, marital status, sexual orientation or gender identity.

Statement of Confidentiality/Privacy

Candidate information provided to ABTC and/or AMP for the purposes of application for the examination remain confidential and may not be released for any purpose without express written consent from the individual applicant.

Qualifications for the Examinations

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

The CCTC, CPTC and the CTP examination may be taken after you have worked a minimum of twelve months as a transplant coordinator or preservationist and have learned the basics about your field through independent study or formal training programs. A candidate is expected to complete the full 12 months of work experience required by the date of application.

Certified Clinical Transplant Nurse (CCTN) Examination

Qualifications for the CCTN examination include being a Registered Nurse (RN) with 12 months of experience as a Transplant Nurse in vascular organ transplantation and at least 12 months of general nursing experience (general experience may be obtained in any area).

Scheduling an Examination Appointment

If your application is approved and you qualify for an examination, you will receive an official confirmation notice. ABTC examinations are administered by computer at over 170 AMP Assessment Centers geographically distributed throughout the United States.

You may complete and submit a paper application (included in this handbook) or an online electronic application form (located at www.goAMP.com).

1. An application is considered complete and approved only if all information requested is complete, legible, and accurate; if the candidate is eligible for the examination; and if the appropriate fee accompanies the application. Applications that are incomplete will be returned to the candidate, along with any fee submitted minus a \$75 processing fee.
2. Paper applications are processed within 10 business days of receipt by AMP and a confirmation notice of eligibility is sent to the candidate. **If you have not received a confirmation notice within three weeks of mailing the application, please contact AMP's Candidate Support Center at (888) 519-9901.**
3. If you registered online, eligibility will be confirmed by email. An examination appointment may be scheduled thereafter.

4. Candidate eligibility and application acceptance is valid for 90 days (as specified in the confirmation notice). A candidate who fails to schedule an appointment for 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.

The confirmation notice includes a website address and a toll-free telephone number directing candidates to contact AMP to schedule an examination appointment. When contacting AMP, please be prepared to confirm a date and location for testing and to provide your social security number as your unique identification number. Examinations are administered **by appointment only** Monday through Saturday at 9:00am and 1:30pm. Individuals are scheduled on a first-come, first-served basis. Refer to the following chart:

If you contact AMP by 3:00pm Central Time on...	Depending on availability, your examination may be scheduled as early as...
Monday	Wednesday
Tuesday	Thursday
Wednesday	Friday/Saturday
Thursday	Monday
Friday	Tuesday

When you schedule an appointment for your examination, you will be notified of the time to report to the Assessment Center. **UNSCHEDULED CANDIDATES (WALK-INS) WILL NOT BE ADMITTED TO THE ASSESSMENT CENTER.** Please call a minimum of four business days prior to the end of your 90-day period to secure an appointment.

Note: Examinations will not be offered on the following holidays:

- New Year's Day
- Martin Luther King Day
- Presidents' Day
- Good Friday
- Memorial Day
- Independence Day (July 4)
- Labor Day
- Columbus Day
- Veterans' Day
- Thanksgiving (and the following Friday)
- Christmas Eve Day
- Christmas Day
- New Year's Eve Day

Special Arrangements for Candidates with Disabilities

The ABTC and AMP comply with the Americans with Disabilities Act (ADA) and strive to ensure that individuals with disabilities are not prevented from taking the examination solely by reason of that disability. AMP will provide reasonable accommodations for candidates with disabilities. Candidates requesting special accommodations must call AMP to schedule their examination appointment.

Wheelchair access is available at all established Assessment Centers. Candidates with visual, sensory or physical disabilities that would prevent them from taking the examination under standard conditions may request special accommodations and arrangements. **Verification of the disability and a statement of the specific type of assistance needed must be made in writing and included with the completed application using the Request for Special Examination Accommodations Form included in this handbook on page 31.** Please inform AMP of your need for special accommodations when scheduling your examination.

Credential Designation

Your certification will be conferred when you pass the examination and receive an official certificate and wallet card from ABTC. These documents provide 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 or CCTN after your name.

Change of Address

The address provided on your application will be used for mailing your confirmation notice of eligibility, certificate and wallet card, unless you indicate a change of address. If you move, you must leave a forwarding address at the post office so that your scheduling information and certification materials reach you at your new address. As a candidate, it is your responsibility to report any changes of address to AMP and/or ABTC.

Assessment Center Locations

Assessment Center locations will be provided when you schedule an examination appointment. Detailed maps and directions are available on AMP's website at www.goAMP.com.

Examination Fees

You must submit the \$425 non-refundable fee made payable to ABTC with a complete examination application. Payment may be made by credit card (American Express, Discover, VISA or Mastercard), personal check, cashier's check or money order. A \$50 fee will be charged for any payment returned unpaid by the bank for any reason. Credit card payment must accompany all online applications.

Effective January 1, 2011, the examination fee for the CCTN examination will be \$325 non-refundable fee.

Forfeiture of Fee

If you:

1. do not schedule an examination appointment within the 90-day eligibility period;
2. fail to reschedule an examination within two business days prior to your scheduled testing session;
3. fail to report for your examination appointment;
4. arrive more than 15 minutes late for your examination appointment; or
5. fail to provide proper ID at the Assessment Center

You will forfeit the examination fee and must reapply for the examination by submitting a new application, documentation and full examination fee.

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 re-scheduling 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 certified mail to ABTC within 30 days after receipt of written notification of admission ineligibility in order to be considered. These appeals should be mailed to the following address:

ABTC Executive Office
 PO Box 15384
 Lenexa, KS 66285-5384

Examination Appointment Changes

Prior to testing, you may reschedule your examination appointment only ONCE at no charge by calling AMP at (888) 519-9901 (toll-free) at least two (2) business days prior to the original scheduled testing appointment and within the 90-day eligibility period. (See following table).

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

If you wish to reschedule an examination but fail to contact AMP at least two (2) business days prior to the scheduled testing session, you will forfeit the application and all fees paid. A complete application and examination fee are required to reapply for a future examination.

If you attempt to withdraw from your examination after confirmation of eligibility, you will forfeit the application and all fees paid to take the examination.

On the Day of Your Examination

On the day of your examination appointment, report to the Assessment Center no later than your scheduled examination time. Once you enter the office, look for the sign indicating AMP Assessment Center Check-In. If you arrive more than 15 minutes after the scheduled testing time you will not be admitted.

To gain admission to the Assessment Center, you must present two forms of identification, one containing a current photograph such as a state identification card or

driver's license. A student ID or employment identification badge will not be accepted as a photo ID. Both forms of identification must be valid and include your current name and signature. You also will be required to sign a roster for verification of identity.

Acceptable Forms of Identification

Acceptable forms of photo identification include: a current driver's license with photograph, a current state identification card with photograph, a current passport, or current military identification card with photograph. Employment ID cards, student ID cards and any type of temporary identification are NOT acceptable as primary identification, but are accepted as secondary identification if they include your name and signature.

Candidates are prohibited from misrepresenting their identities or falsifying information to obtain admission to the Assessment Center. Candidates who misrepresent or falsify identification will be removed from the testing center and from the examination process and prohibited from applying for future examinations.

YOU MUST HAVE PROPER IDENTIFICATION TO GAIN ADMISSION TO THE ASSESSMENT CENTER. After your identification has been confirmed, you will be directed to a testing carrel. The screen will prompt you to enter your social security number. You will take your photograph and it will remain on the screen throughout your testing session. This photograph also will be printed on your score report.

Inclement Weather or Emergency

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

You may visit AMP's website at www.goAMP.com prior to the examination to determine if AMP has been advised that any Assessment Centers are closed. Every attempt is made to administer the examinations as scheduled; however, should an examination be canceled at an Assessment Center, all scheduled candidates will receive notification following the examination regarding a rescheduled examination date, or reapplication procedures.

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

Taking the Examination

Your examination will be given by computer at an AMP Assessment Center. You do not need any computer experience or typing skills to take your examination.

You will have three (3) hours to complete the CCTC, CPTC or the CCTN examination. These examinations contain 175 questions of which only 150 items are scored items. You will have two (2) hours to complete the CTP examination. This examination contains 110 questions of which only 100 items are scored 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 you to complete the entire examination by working quickly and efficiently.

Security

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

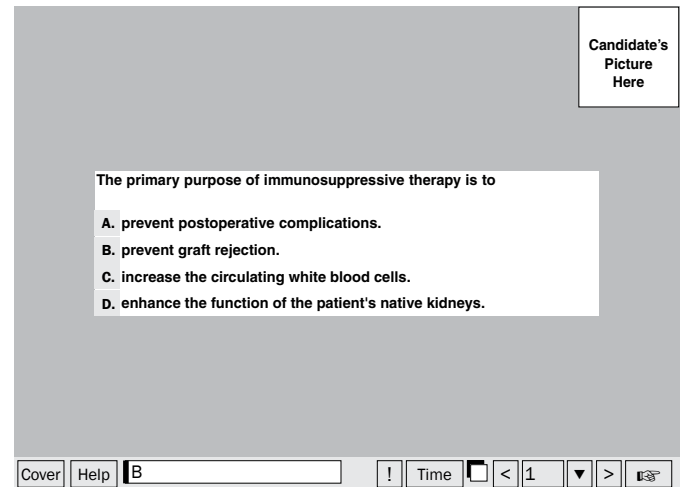
The following security procedures apply during the examination:

- Examinations are proprietary. No cameras, notes, tape recorders, Personal Digital Assistants (PDAs), pagers or cellular phones are allowed in the testing room.
- No calculators are permitted.
- No guests, visitors or family members are allowed in the testing room or reception areas.
- No personal items, valuables, or weapons should be brought to the Assessment Center. AMP is not responsible for items left in the reception area.
- No hats or large coats are allowed in the testing room.

Practice Test

Prior to the examination, you will have the opportunity to practice taking the computerized examination. The time you use for this practice examination is NOT counted as part of your examination time. When you are comfortable with the computer testing process, you may "quit" the practice session and begin the timed examination.

Following the practice examination, you will begin the timed examination. Before you begin, instructions on taking the examination will be provided on-screen. Following is a sample of what the computer screen will look like during the examination.



Examination questions are presented one at a time. The question number appears in the lower right portion of the screen. Indicate your response by either entering the letter of the option you think is correct (A, B, C or D) or clicking on the option using the mouse.

You may leave an examination question unanswered and return to it later. Items also may be bookmarked for later return by clicking in the blank square to the right of the Time button. Clicking on the double arrow (>>) or selecting the NEXT key advances to the next unanswered or bookmarked. When you have completed the examination, the computer reports the number of examination questions you answered. If you have not answered all questions and you have time remaining, return to the examination and answer those questions. Be sure to answer each examination question before ending the examination. There is no penalty for guessing.

Comments may be provided for any item by clicking on the button displaying an exclamation point (!) to the left of the Time button. This opens a dialogue box where comments regarding the question may be entered. Comments will be reviewed, but individual responses will not be provided.

Examination Restrictions

- Pencils will be provided during check-in.
- Possession of a cellular phone or other electronic devices is strictly prohibited and will result in dismissal from the examination.
- You will be provided with one piece of scratch paper at a time to use during the examination. You must return the scratch paper to the supervisor at the completion of testing, or you will not receive a score report. No documents or notes of any kind may be removed from the Assessment 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 Assessment 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, is abusive, or otherwise uncooperative;
- display and/or use electronic communications equipment such as pagers, cellular phones, PDAs;
- talk or participate in conversation with other examination candidates;
- give or receive help or is suspected of doing so;
- leave the Assessment Center during the administration;
- attempt to record examination questions or make notes;
- attempt to take the examination for someone else; or
- is observed with notes, books or other aids.

Violation of any of the above provisions results in dismissal from the examination session. The candidate's score on the examination is voided and examination fees are not refunded. Evidence of misconduct is reviewed by ABTC to determine whether a candidate will be allowed to reapply for future examination. After review, further action may be taken by ABTC's Judiciary Committee. However, if re-examination is granted, a complete application, documentation and examination fee are required. For a complete copy of ABTC's Judiciary Polices please visit ABTC's website at www.ABTC.net and download the organizational bylaws.

Scores Canceled by ABTC

AMP is obligated to ABTC to report scores that accurately reflect the performance of the candidates. For this reason, AMP 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. AMP 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 may be 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 canceled 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 Assessment Center Supervisor to receive your printed score report. Scores are not reported over the telephone, by electronic mail or by facsimile.

If you took the CCTC, CPTC or the CCTN examination, 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.

If you took the CTP examination, you will receive a provisional report at the test center notifying you that you have completed the examination. A "pass" or "fail" score report will be mailed to you in approximately 6 weeks after you take the examination.

Duplicate Score Reports

You may purchase additional copies of your score report at a cost of \$25 per copy. Requests must be submitted to AMP, in writing, within 12 months following the examination. The request must include your name, social security number, address, telephone number, date of examination and examination taken. Submit this information with the required fee payable to AMP. 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 and wallet card.

If You Do Not Pass the Examination

If you do not pass the examination, a reapplication form is provided at the bottom of your score report. To schedule another examination, submit this reapplication form and the full examination fee or apply online at www.goAMP.com. You may reapply at any time, but cannot be scheduled for an examination appointment until 90 days after your last attempt of the examination. A candidate may only attempt an examination once every 90 days.

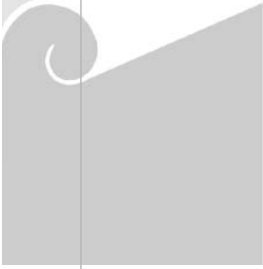
Recertification with ABTC

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 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. For more details, please visit the ABTC website at www.ABTC.net.

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 AMP, without your written consent.



SECTION II – PREPARING FOR THE EXAMINATION

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 was 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.

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 particular 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 several times and ensures that they are referenced properly, including accounting for 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 new questions are reviewed by a psychometrician (a specialist in mathematics of examinations). Any sample question 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.

About the Examinations

The examinations include questions on competencies that a minimally competent first year transplant professional should be knowledgeable about in order to fulfill the job requirements. The CCTC, CPTC and CCTN examinations consists of a total of 175 multiple-choice items, of which 150 have equal weight for scoring. The CTP examination consists of a total of 110 multiple-choice items, of which 100 have equal weight for scoring. The CCTC, CPTC and CCTN examinations includes 25 pre-test, and the CTP examination includes 10 pre-test or sample questions, which will be used for testing question validity but are NOT scored. The sample questions are interspersed throughout the examination and therefore the candidate will give the sample questions the same amount of consideration as other test questions allowing ABTC to analyze their reliability and validity. The CCTC, CPTC and CCTN examinations will be limited to three (3) hours and the CTP examination will be limited to two (2) hours. The time limit is intended to allow candidates to complete the entire examination by working quickly and efficiently. The examination is computer based. Assessment Center locations will be provided when you schedule an examination appointment. Detailed maps and directions are available on AMP’s Website, www.goAMP.com.

Scope of the Examinations

CCTC Examination

The scope of the 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 and heart. 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 recipients.

Overall the examination questions represent standard practices and are not center-specific. Approximately 60 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 population.

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 population 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 have basic understanding of principles related to both adult and pediatric recipients. Approximately 75 percent of examination questions on a CCTN examination form are written so they are general in nature (i.e., not specific to any one vascular organ), while the remainder of the examination includes representative questions relating to specific vascular organs as identified by tasks in the detailed content outline.

What is On the Examination?

The CCTC/CPTC/CTP/CCTN examinations include items on topics that a minimally competent first year transplant coordinator, preservationist or transplant nurse should be knowledgeable about in order to fulfill the job requirements. Independent national job task analysis studies are conducted by ABTC on a regular basis to determine the appropriate content for these examinations. Participants in the job analysis study consisted of

nationally representative groups of practitioners involved in the clinical practice of solid organ transplantation, the procurement practice of solid organ transplantation, practice of solid organ preservation for transplantation or transplant nursing. The results of these job analysis studies were used to determine the examinations' topics and content.

How to Utilize the Content Outline

The examination content is based on an analysis of the tasks that the transplant professionals perform on a daily basis. The format of the test follows the detailed content outline that begins on the following pages. Use this outline as a guide for studying because it is an excellent way to learn about the exam before you actually take it.

Test Specifications

Test specifications for the examination consist of two parts. The first part is the "Detailed Content Outline". It is a two-way table that indicates the content areas and the number of questions by the "Performance Level" or level of difficulty for each content area, in an outline form. The Performance Level describes the three types of questions posed on the examination: recall, application, and analysis. See below:

1. Recall: the ability to recall or recognize specific information.
2. Application: the ability to comprehend, relate or apply knowledge to new or changing situations.
3. Analysis: the ability to analyze information, to put information together to arrive at solutions, and/or to evaluate the usefulness of the solutions.

All items are of the "one best response" type, where you are to select the one response that BEST answers the question (or completes the sentence). However, there are three distinct item formats, as described below.

1. Positively Worded – One best response
Most items are presented in this format. The stem is positively worded and four options (A, B, C, D) follow. You select the BEST response to your answer.
2. Negatively Worded – All of the following EXCEPT
A small portion of items is presented in this format. The stem is negatively worded, such as "All of the following are true EXCEPT", and four options (A, B, C, D) follow. You select the EXCEPTION as your answer.
3. Complex Multiple-Choice – Element/phrase combinations
A small portion of items is presented in this format. The stem is followed by three to five elements preceded by Roman numerals. These are followed by four options (A, B, C, D) containing combinations of the elements. You select the one best element COMBINATION as your answer.

Detailed Content Outline

The Detailed Content Outline lists each task that MAY be tested by content area and performance level. Every task listed for a given content area is not necessarily tested on each form of the examination. Rather, these tasks are representatively sampled such that the test specifications are met (i.e., appropriate number of recall, application and analysis items within each content domain).

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 purposes of these examinations, the following organs are included: heart, lung, liver, kidney, pancreas and intestine.

Detailed Content Outline for the Clinical Transplant Coordinators Examination

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	Items			Total
	Recall	Application	Analysis	
I. EVALUATION AND PREPARATION FOR TRANSPLANT	30	30	22	82
Setting: The Clinical Transplant Coordinator collects and evaluates existing data, and recommends obtaining additional data to determine the suitability of potential transplant recipients and donors. The Coordinator maintains the Wait List and prepares the transplant recipient candidate and/or live donor for organ transplantation by reinforcing previous instruction and assisting with medical preparation.				
A. Education	10	7	3	20
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				
a. candidate to long-term post-transplant follow-up				
b. live donor to long-term follow-up				
4. Discuss with the potential live donor and/or transplant candidate the				
a. evaluation/selection process (e.g., medical, psychosocial, financial)				
b. donor organ and recipient matching and distribution process				
c. expanded donor criteria				
d. expected emotional reactions				
e. transplant recipient and live donor surgical procedures				
f. potential transplant drug regimen and effects				
g. signs/symptoms of infection and organ rejection				
h. diagnostic surveillance of rejection and infection				
i. potential short-term and long-term complications				
j. roles of multi-disciplinary transplant team personnel				
k. patient and graft survival				
l. financial issues				
m. donor/recipient confidentiality				
5. Identify and respond to educational needs of the candidate, live donor, or support system				
B. Data Collection and Evaluation, and Recommendations	3	5	7	15
1. Review				
a. history and physical				
b. social and financial history				
2. Schedule, obtain, and review				
a. laboratory data (e.g., histocompatibility, serology)				
b. diagnostic studies (e.g., radiology, pathology)				
3. Recommend consultations (e.g., infectious disease, psychosocial, dietary)				
C. Suitability Assessment and Preparation of the Potential Transplant Candidate and Live Donor	7	7	1	15
1. Identify medical, psychosocial, and economic findings that determine donor and/or candidate suitability and adherence				
2. Present findings and make recommendations to the transplant team regarding donor and/or candidate suitability				
3. Communicate the team's recommendations to a candidate and/or live donor (e.g., behavior modification, social/financial issues)				
4. Facilitate				
a. additional procedures and tests based on the team's recommendations (e.g., CT scan, cholecystectomy, arteriogram)				
b. scheduling of a potential candidate for protocols as indicated (e.g., desensitization, incompatible ABO)				

Detailed Content Outline for the Clinical Transplant Coordinators Examination

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	Items			Total
	Recall	Application	Analysis	
D. Candidate/Deceased Donor Selection Criteria	2	4	6	12
1. Review, evaluate and present donor organ information (e.g., anatomy, preservation time and technique, organ condition, medical and social history) to the physician				
2. Participate in the decision regarding organ acceptance/rejection and assist with recipient selection according to OPTN regulations				
3. Follow transplant center protocol to exclude potential donor organs				
4. Review potential recipient's current medical and crossmatch status with physicians				
5. Verify candidate's acceptance of an expanded donor criteria organ				
E. Donor and Candidate Preoperative and Intraoperative Care	4	2	0	6
1. Notify staff in appropriate departments (e.g., pre-operative area, ICU, blood bank, admissions) of a potential transplant				
2. Arrange preoperative procedures (e.g., dialysis, x-rays, final crossmatch)				
3. Provide instruction to the live donor and/or candidate (e.g., timing/order of surgical procedures, surgical consent, back-up status)				
F. Wait List Management	4	5	5	14
1. List and maintain a candidate per OPTN policies				
2. Verify listing documentation for accuracy				
3. Maintain effective communication with patient and local care provider				
4. Ensure and review updated diagnostic and lab results				
5. Recognize potential problems and/or changes in eligibility criteria during the waiting period				
6. Amend candidate status as indicated				
7. Maintain current sera as indicated (e.g., PRA, HLA tissue typing)				
II. POST-TRANSPLANT CARE	18	32	18	68
Setting: The Clinical Transplant Coordinator monitors, evaluates, and reports postoperative organ function and complications for the live donor and transplant recipient. The Coordinator provides discharge instruction, coordinates post-transplant follow-up care, monitors patient status, and facilitates the physical, social, and emotional rehabilitation of the patient.				
A. Education	8	12	3	23
1. Identify and respond to educational needs of a recipient and support system				
2. Instruct a transplant recipient and support system about				
a. the transplant drug regimen and effects				
b. signs/symptoms of infection and organ rejection				
c. diagnostic surveillance of rejection and infection				
d. potential short-term and long-term complications				
e. transplant team personnel, roles, and available support services				
f. patient and graft survival				
g. available financial resources				
h. ongoing health maintenance (e.g., cancer screening, bone health, behavior modification, nutrition)				
i. recording data (e.g., temperature, BP, weight)				
j. the frequency of follow-up visits and laboratory studies				
k. reporting abnormalities to transplant center/primary care provider				
3. Instruct a live donor and support system about				
a. immediate post surgical care (e.g., wound care, activity limitations, pain management)				
b. follow-up recommendations				
c. reporting abnormalities to transplant center/primary care provider				

Detailed Content Outline for the Clinical Transplant Coordinators Examination

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	Items			Total
	Recall	Application	Analysis	
B. Postoperative Organ Function Monitoring, Evaluation, and Reporting	10	20	15	45
1. Interpret and report abnormalities in				
a. pertinent physical examination findings (e.g., vital signs, fluid balance)				
b. lab values (e.g., drug levels, electrolyte levels)				
c. diagnostic tests (e.g., PFTs, echocardiogram, radiology, endoscopy, pathology)				
2. Assess for complications				
a. surgical (e.g., thrombosis, stenosis, hemorrhage)				
b. medical (e.g., myocardial infarction, cardiovascular event)				
c. immunologic (e.g., rejection, infection)				
d. psycho-social issues (e.g., depression, anxiety)				
e. adverse effects of the drug regimen				
f. long-term (e.g., recurrent disease, chronic rejection, malignancy)				
3. Confer with the patient's health care provider to determine interventions for complications				
4. Assess need and arrange for				
a. additional laboratory and/or diagnostic studies				
b. follow-up clinic visits				
c. home health care				
d. consultation (e.g., social work, psychologist)				
e. outpatient therapies				
f. hospital admission				
g. medication renewal (e.g., PA forms, medicine change for insurance reasons)				
5. Refer recipient for emergency evaluation and treatment				
6. Report required data to the OPTN/UNET				
7. Facilitate appropriate sharing of information regarding the recipient (e.g., primary care provider, case managers)				
8. Respond to recipient or family inquiries regarding the donor				
9. Evaluate recipient's adherence with the treatment regimen				
10. Reinforce and facilitate health maintenance (e.g., cancer screening, behavior modification)				
11. Facilitate a return to optimal health status				
Totals	48	62	40	150

Detailed Content Outline for the Procurement Transplant Coordinators Certification Examination

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	Items			Total
	Recall	Application	Analysis	
I. PLAN, CONDUCT, AND EVALUATE	2	8	11	21
Setting: The Procurement Coordinator performs an assessment to determine barriers to, and opportunities for, increasing donation. The Coordinator determines information needs of target populations and programs to increase donation awareness. The Coordinator conducts and evaluates specific activities to develop and improve donation rates.				
A. Public Education Activities	0	1	1	2
1. Increase public awareness of organ donation				
2. Evaluate donor awareness activities by reviewing trends in consent rates				
B. Hospital Services	2	7	10	19
1. Determine hospital donor potential				
a. conduct medical record review or use a proxy				
b. review referral activity				
2. Establish and analyze hospital performance goals (e.g., timely referral, referral rate, conversion rate, consent rate, organs transplanted per donor)				
3. Establish with hospital staff clinical triggers for timely referrals of all potential donors				
• Brain Dead • Donation after Cardiac Death				
4. Survey key hospital staff to determine attitudes and knowledge regarding donation				
5. Create, implement, and modify specific hospital action plans				
6. Maintain hospital profiles with key information (e.g., organizational chart, number of beds, critical care beds, services, policies)				
7. Identify and support organ donation champions at various levels including leaders who are willing to be called on to overcome barriers to organ donation in real time				
8. Compare hospital performance to other hospitals in the region and national benchmarks				
9. Build and maintain the necessary collaborative relationships with key hospital staff/physicians at all levels that impact the donation process				
10. Create and maintain a consistent visual hospital presence				
11. Plan and conduct improvement activities (e.g., grand rounds, inservices, policy and procedures, hospital orientations and hospital medical staff meetings, donation councils)				
12. Provide hospital based education, and target core curriculum/education to staff (e.g., donor advocacy, bereavement care, certified requester, critical care)				
13. Determine the impact of other recovery agencies on the donation process (e.g., eye/tissue bank, other OPOs)				
14. Maintain a formal process for comprehensive immediate follow-up communication (e.g., post-donor case conference, written follow-up, unit visits, evaluation forms) between OPO and hospital on activity (e.g., donors, referrals, approaches)				
15. Provide regular reports of hospital donation outcomes to all key hospital staff (e.g., dashboards, compliance reports, annual reports)				
16. Encourage a strong culture of accountability for donor outcomes				
II. EVALUATE AND MANAGE A POTENTIAL DONOR	20	34	38	92
Setting: The Procurement Coordinator conducts screening to determine suitability for donation. The Coordinator ensures effective communication with appropriate individuals (e.g., families and professional staff) involved in the donation process. The Coordinator recommends, performs, and documents appropriate intervention to optimize organ function in a critical care setting.				
A. Determination of the Highest Priority for Legal Consent	4	7	4	15
1. Determine registry donor status (e.g., first person consent, donor registry, donor card)				

Detailed Content Outline for the Procurement Transplant Coordinators Certification Examination

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	Recall	Items		Total
		Application	Analysis	
2. Inform family and hospital staff of donor designation and subsequent donation process				
3. Identify				
a. the legal next of kin in the absence of a donor designation to obtain consent				
b. key individuals (e.g., family, friends, clergy, physician) involved in consent and end-of-life decisions				
4. Assess family dynamics, availability of hospital support system and determine family needs (e.g., cultural, religious, physical, emotional)				
5. Plan and coordinate the consent approach in collaboration with hospital and medical staff according to hospital and/or OPO protocol (i.e., determine effective requestor)				
6. Confirm a family's				
a. understanding of brain death				
b. decision to withdraw support (e.g., DCD)				
7. Coordinate the donation request by providing information for an informed decision (e.g., disfigurement, time factors, autopsy, cost)				
8. Support				
a. the family decision and document outcome				
b. hospital personnel as needed				
9. Offer family follow-up information (e.g., bereavement support, communications, contact numbers)				
B. Required Documentation	8	9	0	17
1. Record the outcome of donor referral				
• donor • no consent • medically unsuitable				
2. Confirm				
a. legal and hospital requirements for death declaration are present (e.g., declaring physician's signature, confirmatory examinations, date, time)				
b. a properly executed consent form (e.g., next of kin, highest priority of consent, directed donation) or donor disclosure form (e.g., donor registry card, signed donor card)				
3. Complete the				
a. history questionnaire (e.g., medical, social, behavioral, admission)				
b. confidential donor chart (e.g., ABO verifications per OPTN, lab data, serologies, hemodynamics, hemodilution status)				
c. billing and expense information				
C. Data Evaluation Pertinent to Potential Organ Donation	4	8	14	26
1. Determine suitability for DCD based on OPO policy				
2. Obtain and disclose current and past medical and behavioral history (e.g., medications, risk factors, surgeries)				
3. Document pre-hospital and hospital course (e.g., down-time, injuries, hemodynamics, infection status)				
4. Perform bedside assessment (e.g., ventilator settings, vital signs, physical findings, neurologic examination)				
5. Obtain				
a. tissue typing samples (e.g., lymph node excision, peripheral blood)				
b. laboratory values (e.g., CBC, serologies, electrolytes, organ function tests, culture results)				
6. Review diagnostic procedure results (e.g., cardiac, pulmonary, pathology)				
7. Determine organ suitability (e.g., OPO administrator/medical director, transplant physician)				

Detailed Content Outline for the Procurement Transplant Coordinators Certification Examination

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	Items			Total
	Recall	Application	Analysis	
D. Evaluation, Recommendation, and Implementation of Interventions	4	10	20	34
1. Optimize donor status				
a. hemodynamic (e.g., I/O, lab values, CVP, CO, vasopressor support, hormone therapy)				
b. pulmonary (e.g., ABGs, chest x-ray, ventilatory modes and settings)				
2. Assess infection status (e.g., CBC, cultures, Gram stain, body temperature, antibiotics, positive serologies)				
3. Identify and treat syndromes and disorders (e.g., diabetes insipidus, coagulopathy)				
III. FACILITATE ORGAN ALLOCATION, RECOVERY, AND PRESERVATION	10	17	10	37
Setting: The Procurement Coordinator facilitates and documents organ allocation in compliance with OPTN requirements. The Coordinator ensures optimal organ recovery and preservation, and completes required documentation.	10	17	10	37
A. Organ Allocation Process	5	8	0	13
1. Register all donors with OPTN				
2. Adhere to established local, regional, and national sharing policies				
3. Complete required documentation (e.g., match-run list, Deceased Donor Registration)				
4. Arrange for transportation (e.g., personnel, organs)				
5. Provide required documentation to agencies (e.g., transplant centers, OPTN, tissue recovery, medical examiners)				
B. Organ Recovery and Preservation	5	9	10	24
1. Ensure				
a. donor stability during transport to the OR (e.g., IV line patency, oxygenation, vital signs)				
b. necessary surgical personnel and supplies are present				
c. aseptic technique is utilized (e.g., donor prep, organ packaging, preservation)				
2. Support OR and anesthesia staff (e.g., management and documentation guidelines, scrub and assist during recovery)				
3. Coordinate the activity and interaction of the recovery team(s)				
4. Facilitate organ preservation (e.g., solutions, equipment, ice, pulsatile preservation)				
5. Document data associated with organ recovery (e.g., anatomy, flush, cross-clamp, warm time, biopsies, operative note)				
6. Ensure all organs and specimens are obtained, packaged, and labeled in accordance with current OPTN requirements (e.g., lymph nodes, spleen, blood, vessels)				
7. Complete post-mortem care				
8. Notify agencies and individuals of case completion (e.g., tissue agency, family, funeral home, Medical Examiner)				
Totals	32	59	59	150

Detailed Content Outline for the Transplant Preservationist Certification Examination

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

Detailed Content Outline for the Transplant Preservationist Certification Examination

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	Items			
	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. Specimen Collection	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

Detailed Content Outline for the Clinical Transplant Nurse Certification Examination

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	Items			
	Recall	Application	Analysis	Total
I. PRETRANSPLANTATION CARE	6	12	6	24
A. Evaluate Objective Measures of End-Stage Organ Failure Secondary Specifications – Do not exceed 1 item for any one organ listed in this section.	1	2	1	4
1. Vital signs and/or hemodynamic parameters				
2. Lab values				
3. Radiology tests				
4. Physical assessment				
B. Monitor Subjective Complaints of a Patient Awaiting Transplantation for Signs of Worsening Failure Including	1	3	2	6
1. Kidney (e.g., edema, nausea, fatigue, mental status changes, pruritis)				
2. Liver (e.g., ascites, bruising, jaundice, confusion)				
3. Pancreas (e.g., nausea, vision changes, numbness/tingling in extremities)				
4. Heart (e.g., shortness of breath, decreased appetite, fatigue, difficulty sleeping, edema)				
5. Lung (e.g., shortness of breath, decreased appetite, increased anxiety)				
6. Intestine (e.g., weight loss, diarrhea, abdominal pain)				
C. Provide Education to a Patient Awaiting Transplantation Including	2	4	2	8
1. Post-operative course (e.g., length of stay, incentive spirometer use)				
2. Lines that will be inserted (e.g., IV, urinary catheter, arterial line, chest tube, pacing wires, endotracheal tube, nasogastric tubes)				
3. Incision care				
4. Pain management plan				
5. Activity limitations, lifestyle and body image changes				
6. Medications and side effects				
7. Importance of patient compliance with post-operative care plan				
8. Explanation of pre-operative tests/procedures (e.g., echocardiogram, pulmonary function test, radiology procedures)				
D. Prepare Pre-Transplant Patient for Surgery by	2	3	1	6
1. Answering questions from the patient/family regarding the transplant procedure				
2. Addressing cultural and psychosocial concerns (e.g., blood products, religious practices related to transplant/medical care/diet, anxiety)				
3. Providing emotional support				
4. Obtaining preoperative tests/procedures (e.g., CXR, lab work, cultures, and ECG)				
5. Administering medications and surgery preparations as ordered				
6. Ordering and administering blood products as ordered				
II. POSTTRANSPLANTATION MONITORING AND MAINTENANCE	17	34	29	80
A. Evaluate Objective Criteria Including	2	5	4	11
1. Vital signs				
2. CVP measurements				
3. Telemetry and epicardial pacemaker				
4. Pulmonary artery catheter measurement (e.g., CO, CI, SVR, PVR, PA wedge)				
5. Drainage output (e.g., surgical drains, ostomy, chest tube, incision dressing, NG)				
6. Intake and output				
7. Daily weights				
8. Pain management				
9. Neurological status assessment				
10. Hypovolemia/graft hypoperfusion (e.g., excessive drainage or bleeding, hypotension, tachycardia, pallor, hypoxia, oliguria)				
11. Bleeding and hematoma				
B. Monitor Laboratory Results Secondary Specifications – Do not exceed 2 items for any one organ listed in this section.	2	4	2	8
1. Observe for evidence of primary graft nonfunction				
a. kidney (e.g., BUN, creatinine, sodium, potassium, magnesium, phosphorus)				
b. liver (e.g., liver enzymes, coagulation studies, lactate, glucose, bilirubin)				

Detailed Content Outline for the Clinical Transplant Nurse Certification Examination

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	Items			Total
	Recall	Application	Analysis	
c. pancreas (e.g., glucose, amylase, lipase, bicarbonate)				
d. heart (e.g., sodium, potassium, magnesium, natriuretic peptide levels)				
e. lung (e.g., blood gases, coagulation studies)				
f. intestine (e.g., albumin)				
2. Observe for evidence of other postoperative complications				
a. bleeding (e.g., Hgb, Hct)				
b. infection (e.g., CBC with differential, sedimentation rate, CRP cultures)				
C. Monitor Graft Function for Complications Secondary Specifications – Do not exceed 3 items for any one organ listed in this section.	3	7	5	15
1. Hyperacute rejection				
2. Kidney recipients				
a. urinary output				
1) ensure catheter patency while monitoring for bleeding, clots, bladder distension, and urine output				
2) irrigate bladder as needed and directed by a physician				
b. urine leaks				
c. ATN				
d. lymphoceles				
3. Liver recipients				
a. vascular thrombosis				
b. bile duct complications (e.g., leaks, stricture, stenosis)				
c. ascites and pleural effusion				
d. intestinal perforation				
4. Pancreas recipients				
a. pancreatitis				
b. vascular thrombosis				
c. cystitis				
5. Heart recipients				
a. arrhythmias				
b. low cardiac output				
c. ventricular failure				
d. pericardial or pleural effusion				
6. Lung recipients				
a. pneumothorax				
b. bronchial anastomosis complications (e.g., stenosis, leak)				
c. pleural effusion				
D. Identify Potential Complications and Appropriate Interventions	3	7	5	15
1. Impaired wound healing				
a. report signs (e.g., purulent drainage, edge separation, redness, necrosis, dehiscence)				
b. intervene as ordered by a physician (e.g., wound care, enzymatic debridement, antibiotics)				
c. collaborate with multidisciplinary team (e.g., physical therapist, wound-care nurse, nutritionist, home-health nurse)				
2. Fluid and electrolyte imbalance				
a. report signs (e.g., poor skin turgor, daily weight and vital sign changes, dry mucous membranes, decreased urine output, weakness, mental status changes, muscle aches, dyspnea, rales, edema, distended neck veins, ascites, abnormal lab values)				
b. intervene as ordered by a physician (e.g., daily weights, replace urine output with IV fluids, replace electrolytes PO or IV)				
c. collaborate with multidisciplinary team (e.g., nutritionist, physical therapist)				
3. Hypo- and hyperglycemia				
a. report signs (e.g., cool and clammy skin, diaphoresis, mental status changes, palpitations, polyuria, polydipsia, fatigue, blurred vision)				

Detailed Content Outline for the Clinical Transplant Nurse Certification Examination

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	Items			Total
	Recall	Application	Analysis	
b. intervene as ordered by a physician (e.g., perform capillary blood glucose measurements, administer glucose or insulin, offer carbohydrates)				
c. collaborate with multidisciplinary team (e.g., diabetes educator, nutritionist, home-health nurse)				
4. Hypo- and hypertension				
a. report signs (e.g., vital sign changes, level of consciousness, dizziness)				
b. intervene as ordered by a physician (e.g., administer PO / IV vasoactive drugs, fluid boluses, blood products, limit activities)				
c. evaluate response to interventions (e.g., increased VS monitoring frequency)				
5. Altered bowel function				
a. report signs (e.g., abdominal distension and pain, frequency and consistency of bowel movements, stoma condition)				
b. intervene as ordered by a physician (e.g., increase activity, encourage adequate fluid and fiber intake)				
c. evaluate response to laxative of choice, GI stimulants, suppositories, stool softeners, and/or enemas				
d. assess for causes of altered bowel function (e.g., review medications, patient activity)				
6. Altered nutrition				
a. report signs (e.g., low serum albumin, appetite and weight changes)				
b. intervene as ordered by a physician (e.g., calorie counts, enteral and parenteral nutritional supplements)				
c. collaborate with the multidisciplinary team (e.g., nutritionist, ancillary nursing staff)				
7. Altered mobility / self-care deficit				
a. report signs (e.g., incentive spirometer volumes, level of independence with ADL and ambulation)				
b. intervene as ordered by a physician (e.g., activity restrictions, encourage/assist with mobility, involve family)				
c. collaborate with the multidisciplinary team (e.g., Physical, Occupational, Speech, and Respiratory Therapy)				
E. Evaluate Graft Rejection Secondary Specifications – Do not exceed 3 items for any one organ listed in this section.	2	5	7	14
1. Post-Biopsy Monitoring				
a. monitor the recipient in the immediate post-biopsy period for				
1) vital signs changes				
2) bleeding externally from the site or internally (e.g., hematoma, hematuria)				
3) pain				
4) activity limitations instructions and enforcement				
b. monitor for organ-specific biopsy complications				
1) kidney (e.g., hematuria)				
2) liver (e.g., abdominal pain, fever, blood in bile drainage)				
3) heart (e.g., dysrhythmia)				
4) lungs (e.g., pneumothorax, decreased pulse oximetry)				
c. educate a patient about possible interventions based on biopsy grades (e.g., hospitalization, alteration of immunosuppression regimen)				
2. Identify or recognize signs and symptoms of graft rejection for				
a. kidney recipients				
• fever, edema, or ascites				
• gross hematuria, abdominal pain, or tenderness over graft site				
• increased BUN and creatinine				
• decreased urine output				
• increased weight				
• increased blood pressure				

Detailed Content Outline for the Clinical Transplant Nurse Certification Examination

Open cells show an examination could include items from indicated cognitive levels.
Shaded cells prevent appearance of items on examinations.

	Items			Total
	Recall	Application	Analysis	
b. liver recipients				
• increased liver enzymes, coagulation studies, and bilirubin				
• change in T-tube bile drainage from golden brown to lighter color or presence of sludge				
• increased abdominal girth/ascites				
• light colored stools/dark colored urine				
• jaundice				
• fever				
• right upper quadrant pain				
• fatigue and malaise				
• pruritis				
c. pancreas recipients				
• glucose intolerance				
• right upper quadrant pain				
• increased serum amylase				
d. heart recipients				
• dyspnea, orthopnea, and rales				
• irregular, diminished or absent pulse, hypotension				
• atrial- or brady-dysrhythmias				
• S3, S4 auscultated heart sounds				
• fatigue, restlessness, confusion				
• cool, pale, or mottled skin				
• oliguria, peripheral edema, weight gain				
• fever				
• distended neck veins				
e. lung recipients				
• shortness of breath				
• fatigue				
• cough				
• fever				
• hypoxemia				
• decreased exercise tolerance (e.g., 6-minute walk)				
• decreased incentive spirometry volumes				
• 20% decreased pulmonary function tests (e.g., FEV1)				
F. Recognize Signs and Symptoms of Infections	1	2	4	7
1. Ears-nose-throat (e.g., sinus drainage, rhinitis, cough, sneeze, ear ache, pruritis, fever, thrush, mouth sores, lesions, dental caries, erythema, swollen lymph glands)				
2. Pulmonary (e.g., cough, wheezing, change in color and quantity of sputum, shortness of breath)				
3. GI (e.g., diarrhea, nausea, vomiting, abdominal pain, bleeding, appetite loss)				
4. Urinary (e.g., frequency, burning, urgency, cloudy, foul odor, dysuria, flank pain)				
5. Integumentary (e.g., lesions, rash, pruritis, wound drainage, foot ulcers)				
6. Neurological (e.g., mental status changes, neck pain, headache)				
7. Musculoskeletal (e.g., joint pain, muscle aches, fever)				
G. Maintain Patient Safety and Prevent Infections	4	3	1	8
1. Implement				
a. neutropenic protocol per a physician's order				
b. thrombocytopenic protocol per a physician's order				
2. Limit room traffic and place a visitor restriction sign on the door for a neutropenic patient				
3. Maintain protective isolation status for an immunosuppressed patient per center policy				
4. Anticipate a physician's order for cultures (e.g., blood, urine, stool, sputum) for evidence of infection in response to fever				

Detailed Content Outline for the Clinical Transplant Nurse Certification Examination

Open cells show an examination could include items from indicated cognitive levels.
Shaded cells prevent appearance of items on examinations.

	Items			
	Recall	Application	Analysis	Total
5. Administer appropriate blood products based on CMV status as ordered by physician				
6. Implement effective hand washing				
7. Prevent central line catheter/peripheral intravenous line infections by site care and changes according to hospital protocol				
8. Administer antimicrobials as ordered				
9. Obtain ordered samples for culture (e.g., blood, urine, stool, sputum)				
H. Evaluate psycho-social response	0	1	1	2
1. Allow patient to ventilate feelings regarding transplant/donor				
2. Monitor for mood changes				
3. Monitor support systems				
III. PHARMACOLOGICAL THERAPEUTICS	6	8	15	29
A. Administer immunosuppressive drugs, anticipate side effects and drug interactions, and monitor therapeutic levels and other lab values	3	4	7	14
1. Corticosteroids (e.g., Prednisone, Methylprednisolone)				
2. Calcineurin inhibitors (e.g., Tacrolimus, Cyclosporine)				
3. Antimetabolites (e.g., Mycophenolate mofetil, Azathioprine, Cyclophosphamide)				
4. Mono- and polyclonal antibody products (e.g., Muromonab CD3, Antithymocyte globulin, Daclizumab, Basilixmab)				
5. Others (e.g., Sirolimus)				
B. Administer non-immunosuppressive drugs, anticipate side effects and drug interactions, and monitor therapeutic levels and other lab values	3	4	8	15
1. Antimicrobials (e.g., antibiotics, antifungals, antivirals, antiprotozoals)				
2. Analgesics (e.g., Narcotics, Non-narcotics, muscle relaxants)				
3. Cardiovascular (e.g., beta blockers, ACE inhibitors, calcium channel blockers, cholesterol lowering agents, diuretics, inotropes)				
4. Anti-ulcers (e.g., H2 blockers, PPI, antacids)				
5. Prostaglandins (e.g., Alprostadil/PGE1)				
6. Insulin and Anti-hyperglycemics				
IV. EDUCATION AND DISCHARGE	4	5	3	12
A. Educate Transplant Recipient/Family	3	3	1	7
1. Prepare for possible dialysis				
2. Instruct regarding infection control measures (e.g., hand washing, incision site care, avoid touching tubes and drains, dietary restrictions, visitor and pet restrictions, vaccines, dental procedure precautions)				
3. Reinforce medication regimen (e.g., drug name, dose, administration schedule, purpose, side-effects, food/drug/herb interactions, therapeutic drug levels)				
4. Reinforce discharge instructions including				
• signs and symptoms of graft rejection				
• follow-up care				
• need for biopsy				
• compliance to care				
• diet and fluid intake or restrictions				
• wound care				
• activity limitations				
• pregnancy and birth control				
• travel preparation / precautions and emergency resources				
• patient transplant log (e.g., vital signs, weight, medications, capillary blood glucose)				
B. Initiate Patient Self-Care Teaching	1	2	2	5
1. Validate return-demonstration and recording of				
• vital signs				
• intake/output, weight, capillary blood glucose,				

Detailed Content Outline for the Clinical Transplant Nurse Certification Examination

Open cells show an examination could include items from indicated cognitive levels.
Shaded cells prevent appearance of items on examinations.

	Items			
	Recall	Application	Analysis	Total
<ul style="list-style-type: none"> • self-administration of medications at the scheduled time • catheter and drain care • ostomy care • incision care 				
2. Identify potential barriers to postoperative follow up				
3. Collaborate with the transplant team regarding psychosocial support (e.g., family and community support, support groups, financial concerns)				
V. PROFESSIONAL RESPONSIBILITIES	2	2	1	5
A. Support Transplantation Research and Education	2	1	0	3
1. Verify consent was obtained before initiating a protocol				
2. Obtain research data per protocol (e.g., draw laboratory samples, document vital signs, administer medications)				
3. Educate new staff and nursing students regarding transplantation and organ donation				
B. Follow Ethical/Legal Guidelines	0	1	1	2
1. Maintain confidentiality of donor and recipient identities				
2. Transcend own values and emotional response regarding ethical conflicts (e.g., HIV+, substance abuse, pregnancy, non-compliance)				
Totals	35	61	54	150

Sample Questions

Three sample questions follow to provide you 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 complications.
- *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 endothelial 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 the ureteral implantation site?

- I. IVP
 - II. Loopogram
 - III. KUB
 - IV. Cytometrics
- 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 his or her 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 flash cards 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.
- Don't 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 review your materials.
- Get a good night's sleep, eat before the exam, and dress comfortably for the testing site.
- Relax

Examination Detailed Content Outlines are enclosed with this Candidate Handbook. The outlines show content areas relevant to each major performance area and the number of questions by performance level for each content area. Cognitive levels describe the type of questions posed on the examinations: recall, application and analysis.

1. Recall: The ability to draw specified information from memory is required.
2. Application: The ability to comprehend, relate, compare, and interpret information in new or changing situations is required.
3. Analysis: The ability to synthesize information, arrive at solutions, and/or to evaluate the usefulness of the solutions is required.

Values presented in the three cognitive level columns indicate the number of questions that will be included on each form of the examinations, respective to content area/performance level. The sum of these numbers is 150/100 – the number of scored questions on the examination. A candidate can use the examination matrix to obtain a general impression of the examination and on closer inspection determine the relative importance of each category on the examination by comparing the number of questions in each category. The outline also

lists each task that MAY be presented by content area and cognitive level. Each and every task listed is not tested on every examination form. Rather, these tasks are representatively sampled such that specifications are met (i.e., appropriate number of recall, application and analysis level questions). You should also note some tasks are blocked out at certain cognitive levels.

Suggested References for the Certification Examination for Clinical Transplant Coordinators

1. *Core Curriculum for Transplant Nurses*. Sandra Cupples and Linda Ohler, eds. Mosby, Inc., 2008.
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. *Primer on Transplantation (2nd Edition)*. Norman, D. and Turka, L. eds. American Society of Transplantation, 2001.
6. *Handbook of Kidney Transplantation (4th Edition)*. Danovitch, G.M. Lippincott, Williams and Wilkins, 2005.
7. *Nursing Drug Handbook* – current edition.
8. *Mosby's Diagnostic and Laboratory Test Reference* – current edition.

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 current edition 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. *Progress in transplantation: reprint collection, Donor Management Issues 2003*.
7. *Critical Care Nurse: Organ Donation Issue*, American Association of Critical Care Nurses, Vol. 19, No. 2, April 1999.
8. The death record review manual from AOPO.
9. *Conditions of Participation*, current edition.
10. Phillips, M.G. (ed.) *Organ procurement, preservation and distribution in transplantation*. 1996.
11. *Organ and Tissue Donation: A reference guide for clergy—SEOPF and UNOS* current edition.

12. *UNOS organ procurement coordinators handbook* 3rd edition, 2000.
13. Klintman, G., Levy M. *Organ Procurement and preservation Landes Bioscience Vademecum*, Austin Texas 1999.
14. Warmbrodt, J., et al. *The business of getting referrals: a step by step guide for organ procurement professionals*. Warmbrodt Resources, Fairway KS, 1992.
15. *Roles and training in the donation process: a resource guide*. Dept. of Health and Human Services Administration – Health Care Financing Administration. August 2000.
16. *Informed consent in tissue donation: expectations and realities*. Dept. of Health and Human Services – Office of the Inspector General. January 2001.
17. *Non-heart beating organ transplantation practice and protocols*. Institute of Medicine. National Academy Press, Washington DC.
18. 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.
19. Association of Organ Procurement Organizations Clinical Standards
20. *A Clinician's Guide to Donation and Transplantation* – NATCO, Ludlow, Ohler and Shafer
21. Association of PeriOperative Nurses – Standards and Guidelines

Journals and specific articles:

22. *Progress in transplantation* –the journal for procurement and clinical transplant professionals.
 - a. Issues from 2000 to the current issue have many articles on organ donation and procurement for reviewing for the CPTC examination. JCAHO Accreditation standards. *Transplantation reviews*. Vol. 13, No. 1, January 1999.

Journal of Transplant Coordination

- a. Franz, H.G., DeJong, W., Wolfe, S., et al. *Explaining brain death: a critical feature of the donation process*. 1997; 7:14-21.
- b. Gortmaker, S.L., Beasley, C.L., Sheehy, E., et al. *Improving the consent process to increase family consent for organ donation*. 1998; 8:210-17.
- c. Orłowski, J. and Spees, E.K. *The use of thyroxine (T-4) to promote hemodynamic stability in the vascular organ donor; a preliminary report on the Colorado experience*. 1991; 1:19-22.
- d. Shirley, S. and Stampfl, R. *The discipline of hospital development: a conceptual framework incorporating marketing, managerial, consumer behavior, and adult learning practices*. 1997; 7:205-10.
- e. Szust, J., Olson, L., Cravero, L. *A comparison of OPO pulsatile machine preservation practices and results*. 1999; 9:97-100.

23. Cerney, M.S. *Solving the organ donor shortage by meeting the bereaved families needs*. Critical Care Nurse, February 1993.
24. Chabalewski, F., and Norris, G. *The gift of life: talking to families about organ and tissue donation*. AJN June 1994.
25. Gortmaker, S.L., Beasley, C.L., Brigham, L.E., et al. *Organ donor potential and performance: size and nature of the organ donor shortfall*. Critical Care Medicine Vol. 24, No. 3, 432-9 (1996).
26. Kawamoto, K. *Organ procurement in the operating room*. AORN Journal Vol. 55, No 6, 1541-6 (1992).
27. Troug, R., Robinson, W. *Role of brain death and the dead donor rule*. Critical Care Medicine Vol. 3, No. 9 (2003).
28. Salim, A., Vassiliu, P., Velmahos, G.C., et al. *The role of thyroid administration in potential organ donors*. Arch Surg. Vol. 136, No. 12, 1377-80 Dec. 2001.

Reference Books

29. Gomella, L.G. et al. *Clinicians pocket reference*. (7th edition) Appleton-Century-Crofts, Norwalk CT.
30. Chernecky, C.C., Krech, R.L., Berger, B.J. *Laboratory Tests and Diagnostic procedures*. W.B. Saunders, Philadelphia 1993.
31. The AACN Procedure Manual, Chapter 15.
32. CLIA/CDC Guidelines (1996 or current edition).
33. Stillwell and Randall. *Pocket guide to cardiovascular care*. 1994 or current edition.
34. Taber's Medical Dictionary – current edition.
35. Nursing Drug Handbook – current edition.
36. White, K. *Fast facts for adult critical care*. Kathy White Learning Systems.
37. National Association of Medical Examiners Policies and Guidelines on Human organ and tissue procurement, St. Louis MO. 1991.

Suggested References for the Certification Examination for the Clinical Transplant Nurse

1. ANNA. (2008) *Core Curriculum for Nephrology Nursing*. 5th Edition.
2. Cavanaugh, Bonita Morrow. (2003) *Nurses's Manual of Laboratory and Diagnostic Tests*. 4th Edition.
3. Linda Ohler, RN, MSN, CCTC, FAAN, Dianne LaPointe Rudow, DrNP, CCTC; Teresa Shafer, RN, MSN, CPTC (2006) *A Clinician's Guide to Donation and Transplantation*.
4. Cupples, Sandra and Ohler, Linda. (2002) *Transplantation Nursing Secrets*. Harley and Belfus, Inc., Philadelphia.
5. Dambro, Mark. (1999) *Griffith's 5 Minute Clinical Consult*. Online – <http://www.5mcc.com/5mcc/ub>

6. Danovitch, G.N. (2009) *Handbook of Kidney Transplant*. Lippincott. 5th Edition.
7. Deglin and Vallerand. (2010) *Davis's Drug Guide for Nurses, with Resource Kit CD-ROM*. 11th Edition. Online- <http://www.drugguide.com/ddo/ub>
8. Foster, C., et al. (2010) *The Washington Manual® of Medical Therapeutics (Spiral Manual Series)*. Washington University School of Medicine, Department of Medicine. 33rd Edition.
9. Hargrove-Huttel, Ray. (2004) *Lippincott's Review Series, Medical-Surgical Nursing*. 4th Edition.
10. Hockenberry and Wilson. (2008) *Wong's Essentials of Pediatric Nursing*. 8th Edition.
11. Karch, Amy. (2009) *Nurse's Drug Guide*. 10th Edition.
12. Langnas, Alan. *Intestinal Failure: Diagnostics, Management and Transplantation*.
13. Lewis, S., et al. (2007) *Medical – Surgical Nursing*. 7th Edition
14. *The Merck Manual of Diagnosis and Therapy*, 17th Edition, 1999. Online – <http://www.merck.com/mmpe/index.html>
15. Morris and Knechtle. (2008) *Kidney Transplantation Principals and Practice*. 6th Edition.
16. Nettina, Sandra. (2009) *The Lippincott Manual of Practical Nursing*. 9th Edition.
17. Pagana, Kathleen D. and Timothy J. (2008) *Mosby's Diagnostic and Laboratory Test Reference*.
18. *Physicians' Desk Reference* (2010). Medical Economics Company, Inc., New Jersey. 64th Edition.
19. Pirsh, Simmons, Sollinger. (2007) *Transplantation Drug Manual*. 5th Edition.
20. Potter and Perry. (2009) *Fundamentals of Nursing*. 7th Edition.
21. Schell and Puntillo. (2006) *Critical Care Nursing Secrets*. 2nd Edition.
22. Skidmore-Roth, Linda. (2009) *Mosby's 2010 Nursing Drug Reference (SKIDMORE NURSING DRUG REFERENCE)*.
23. Smeltzer, et al. (2008) *Brunner and Suddarth's Textbook of Medical-Surgical Nursing*, North American Edition: In Two Volumes.
24. Stuart, F. (2003) *Organ Transplantation. Landes Bioscience Medical Handbook (Vademecum)*. 2nd edition.
25. Urden, Lough, and Stacy. (2008) *Priorities in Critical Care Nursing*. 5th Edition.
26. Woods, Susan. (2005) *Cardiac Nursing*. 5th Edition. Lippincott, Williams, and Wilkins.

SECTION 2: EXAMINATION APPLIED FOR (check only one)

- 1. Certification Examination for Clinical Transplant Coordinator (CCTC)
- 2. Certification Examination for Procurement Transplant Coordinator (CPTC)
- 3. Certification Examination for Transplant Preservationist (CTP)
- 4. Certification Examination for Transplant Nurse (CCTN)
- 5. I am applying for more than one examination

Because of functional limitations imposed by visual, sensory or physical disabilities, special accommodations will be necessary for me to complete the certification examination. (Please complete the Special Examination Accommodations form signed by a licensed healthcare provider or other qualified professional who is experienced in providing accommodations for you.)

Examination Fee: \$425 (per examination) payable to ABTC **NOTE: Effective January 1, 2011, the examination fee for the CCTN examination will be \$325.**

Method of Payment: Check/Money Order VISA MasterCard Discover American Express
Card # _____ Signature _____ Expiration Date _____

SECTION 3: EMPLOYMENT AS A CLINICAL OR PROCUREMENT TRANSPLANT COORDINATOR, TRANSPLANT PRESERVATIONIST OR TRANSPLANT NURSE IN VASCULAR ORGAN TRANSPLANTATION

Present Employer: _____
Name of Hospital/Organization

Street _____ City _____ State _____ Zip _____
Title: _____ Employed From: _____ To: _____
Mo/Day/Yr Mo/Day/Yr

Supervisor: _____ Telephone: (____) _____
Name/Title

Medical Director: _____
Name/Title

Have you previously worked as a clinical or procurement transplant coordinator or clinical transplant nurse in vascular organ transplantation?
 No Yes If yes, complete the information below:

Hospital/Organization: _____
Title: _____ Employed From: _____ To: _____
Mo/Day/Yr Mo/Day/Yr

Hospital/Organization _____
Title: _____ Employed From: _____ To: _____
Mo/Day/Yr Mo/Day/Yr

SECTION 4: VERIFICATION OF EXPERIENCE

As the medical director and/or supervisor of the procurement and/or clinical transplant facility, the following signature certifies that this candidate will have completed the work experience specified under Section 3, EMPLOYMENT AS CLINICAL, PROCUREMENT TRANSPLANT COORDINATOR, TRANSPLANT PRESERVATIONIST OR CLINICAL TRANSPLANT NURSE IN VASCULAR ORGAN TRANSPLANTATION, by the date of their application.*

*** The following signature attests to personal knowledge that this candidate has completed 12 months of work as a transplant coordinator, transplant preservationist or transplant nurse in vascular organ transplantation and for CCTN candidates is a registered nurse with a current license and has 12 months in general nursing experience in addition to transplant nursing experience. Applicants for the PROCUREMENT EXAMINATION must obtain a signature from the supervisor or medical director of their affiliated organ procurement agency. Facsimile signatures are not acceptable.**

Supervisor or Medical Director Signature _____ Supervisor or Medical Director Name (please print) _____

SECTION 5: APPLICANT SIGNATURE

I certify that I have read all portions of this application and believe that I comply with all admission policies for the Certification Examination for Clinical Transplant Coordinators, Certified Clinical Transplant Nurse, Certified Transplant Preservationist and/or Certification Examination for Procurement Transplant Coordinators. The information I have submitted in this application is complete and correct to the best of my knowledge and belief. I understand that if the information I have submitted is found to be incomplete or inaccurate, my application may be rejected or my examination results may be delayed, not released, or invalidated by the ABTC. I also understand that the ABTC may confirm my eligibility for this examination by verifying my academic/professional credentials and/or by contacting the employers listed in this application.

I UNDERSTAND THAT I FORFEIT ALL EXAMINATION REGISTRATION FEES IF I DO NOT SCHEDULE MY EXAMINATION WITHIN 90 DAYS OF ELIGIBILITY.

Signature _____ Date _____

PLEASE NOTE: DO NOT sign this statement unless all previous sections of this application have been fully completed. Facsimile signatures are not acceptable.

THIS APPLICATION MUST BE SIGNED AND DATED WITH CURRENT DATE.

REQUEST FOR SPECIAL EXAMINATION ACCOMMODATIONS

If you have a disability covered by the Americans with Disabilities Act, please complete this form and the Documentation of Disability-Related Needs on the reverse side so your accommodations for testing can be processed efficiently. The information you provide and any documentation regarding your disability and your need for accommodation in testing will be treated with strict confidentiality.

Candidate Information

Social Security Number _____ - _____ - _____

Name (Last, First, Middle)

Street Address

City State Zip Code/Postal Code Country

Daytime Telephone Number Fax Number E-mail Address

Special Accommodations

I request special accommodations for the following examination: CCTC CPTC CTP CCTN

Please provide (check all that apply):

- Reader
- Extended testing time (time and a half)
- Reduced distraction environment
- Other special accommodations (Please specify.)

Comments: _____

Signed: _____ Date: _____

**Return this form with your examination application and fee to:
AMP, Examination Services Department, 18000 W. 105th Street, Olathe, KS 66061-7543, Fax 913-895-4650.**

DOCUMENTATION OF DISABILITY-RELATED NEEDS

Please have this section completed by an appropriate professional (education professional, physician, psychologist, psychiatrist) to ensure that AMP is able to provide the required test accommodations.

Professional Documentation

I have known _____ since ____ / ____ / ____ in my capacity as a
Candidate Name Date

Professional Title

The candidate discussed with me the nature of the examination to be administered. It is my opinion that, because of this candidate's disability described below, he/she should be accommodated by providing the special arrangements listed on the reverse side.

Describe disability below: _____

Signed: _____ Title: _____

Printed Name: _____

Address: _____

Telephone Number: _____

Date: _____ License # (if applicable): _____

Return this form with your examination application and fee to:
AMP, Examination Services Department, 18000 W. 105th Street, Olathe, KS 66061-7543, Fax 913-895-4650.

CHANGE OF ADDRESS FORM

Directions: Use this form to report a change of address. Please print or type all information. **Send to:** American Board for Transplant Certification, Examination Services Department, AMP, 18000 W. 105th Street, Olathe, KS 66061-7543.

Print your new address below:

Name _____ Social Security Number _____

Street _____

City _____ State _____ Zip _____

Telephone (_____) _____ E-mail Address _____

Please print previous address below:

Street _____

City _____ State _____ Zip _____

Telephone (_____) _____ E-mail Address _____

I hereby authorize ABTC to change my address as indicated above.

Candidate's Signature _____ Date _____