Core Competencies for the Advanced Practice Transplant Professional

NATCO
The Organization for Transplant Professionals
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**Assumption Statements**

This document outlines the core competencies for practitioners/coordinators in the field of clinical transplantation.

These general practitioner/coordinator competencies are broad in scope to acknowledge the diverse professional practices unique to each transplant center.

These competencies are meant to be applicable to both adult and pediatric age groups.

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<thead>
<tr>
<th>#</th>
<th>Competency Category</th>
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<tbody>
<tr>
<td>1</td>
<td>Transplant referral and evaluation</td>
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The Advanced Practice Transplant Professional (APTP) maintains patient records, both donor and recipient, in compliance with the Health Insurance Portability and Accountability Act (HIPAA) regulations.

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**Definitions**

**Experienced Clinical Transplant Professional:**

A clinician delivering care to patients who are potential/actual organ donors (living and deceased), transplant candidates or transplant recipients and having a minimum of three years in his or her area of expertise. These clinicians provide expert patient care delivery while mentoring others and providing leadership, which often includes but it is not limited to: 1) administrative duties, 2) protocol development, and 3) education of residents, coordinators and staff nurses.

**Advanced Practice Transplant Professional:**

A healthcare provider directing care for patients who are potential/actual organ donors (living and deceased), transplant candidates or transplant recipients and has an advanced level education in their profession. Often referred to as mid-level providers or physician extenders: A medical provider who is not a physician but is licensed to diagnose and treat patients in collaboration with a physician, extending the availability of health care.

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**1. Transplant Referral and Evaluation**

The APTP demonstrates an understanding of indication and contraindications for solid organ transplant and has the ability to perform and interpret results of the medical evaluation of transplant candidates to determine suitability.

**The APTP**

Identifies appropriate candidates upon referral, and orders the appropriate transplant evaluation.

Serves as a member of the multidisciplinary team during the evaluation process of the potential transplant candidate.

Utilizes evidence-based medicine to develop the protocol for evaluation of the potential transplant candidate.

Conducts the age-appropriate transplant evaluation, including, a complete history and physical exam, and orders medical testing not limited to:

- Medical/surgical evaluation
- Psychosocial evaluation
- Educational assessment
- Laboratory evaluation
- Radiological evaluation
- Cardiopulmonary evaluation
- Nutritional evaluation

Interprets serological results of the potential transplant candidate and their implications for transplant.

Interprets medical test results of the potential transplant candidate and their implications for transplant.

Obtains recipient blood type, tissue typing and cytotoxic antibodies according to transplant center protocol.

Identifies possible co-morbidities in the transplant candidate, and performs the evaluation as indicated or refers to specialty consultation when needed.

Conducts an assessment for presence of malignancy before listing.

Identifies absolute and relative contraindications to transplantation.

Assesses need for immunizations and ensures patient understands risk and benefit of immunizations required before transplantation.

Educates and obtains necessary consents from candidate/family/legal guardian about:

- Living donation options
- Evaluation process
- OPTN regulations
- Organ allocation
- Waiting phase
- Transplant process
- Risks/benefits, including utilization of expanded donors and high-risk donors, if applicable
- Alternatives to transplantation

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Post-operative phase, including immunosuppressive therapy and effects.
Health maintenance pre-transplant and post-transplant.
Potential research protocols of the transplant program.
Candidate/family/legal guardian responsibility throughout the transplant process.

Identifies and responds to the psychosocial and economic needs of the transplant candidate/family/legal guardian during evaluation.
Collects and evaluates medical, psychosocial and financial data for review by the multidisciplinary transplant team.
Communicates with referring physicians, other health care providers, payors and transplant team members regarding the candidate’s status and evaluation outcome.
Demonstrates knowledge of, and compliance with, OPTN/UNOS policies and listing requirements.
Informs and educates patient/family/legal guardian at time of listing.
Ensures patient and referring physician/dialysis center are informed in writing of transplant listing, denial or postponement.
Acts as resource for internal and external health care providers.
Provides and maintains comprehensive documentation of evaluation process and makes appropriate referrals to specialists.
Provides data to OPTN/UNOS for listing statistics.
Confirms that the patient’s candidacy is based upon the program’s selection criteria.
Obtains informed consent prior to placing the recipient on the waiting list.

2. Pre-Transplant Waiting Period

The APTP demonstrates knowledge and the ability to monitor, coordinate and manage the care of the candidate awaiting organ transplantation.

The APTP

Conducts ongoing repeat evaluations while patient is waitlisted, which includes a complete history and physical exam, ordering and interpretation of laboratory tests, diagnostic tests and collaborative patient management with the transplant team.
Manages symptomatology and complications related to end-stage organ failure.
Ensures that candidate is still an appropriate candidate for transplant, based upon program’s selection criteria.
Provides comprehensive documentation of pre-transplant patient care.
Assesses patient and family’s educational needs and deficits.
Provides education about the patient’s disease state and transplantation for patient and patient family.
Identifies patient needs and specializes plan to meet particular educational, psychological, cultural and economic concerns.
Participates in patient-focused educational workshops.
Provides patient with information regarding evaluation, living donation and extended criteria donation when applicable, and obtains the necessary consents.
Acts as patient advocate, particularly during transplant evaluation process.
Maintains a working relationship with Primary Care Provider (PCP) and provides medical updates and recommendations.
Performs history and physical for transplant admission.
Admits patient for hospitalization if indicated and if hospital allows.
Performs and supervises procedures, may include but not limited to biopsies, thoracentesis or paracentesis.
Writes orders for patient care, prescribes medication and evaluates laboratory and diagnostic testing in collaboration with supervising physician.
Identifies psychosocial needs and works closely with social worker, psychiatrist and financial coordinator.
Assist with transfer of patients from outside institutions.
Obtains necessary consents for evaluation, transplant listing, donor-specific variables such as high-risk donors or extended donor criteria.
Ensures cytotoxic antibody screen is obtained regularly per center protocol.
Identifies the need for re-evaluation and initiates when appropriate.
Serves as a resource for internal and external health care providers.

3. Perioperative Period

APTP exhibits knowledge and ability to manage the transplant process when an organ becomes available for the potential recipient. This includes defining and adhering to the current OPTN/UNOS regulations and allocation policies.

The APTP

Performs pre-operative evaluation of potential recipients and donors: Review pre-operative testing electrocardiogram (EKG), chest x-ray (CXR), laboratory values.
Obtains proper consent in regards to donor types (DCD, ECD, HCV, Hepatitis B core, CDC high-risk) and surgery risk.
Implements orders individualized for patient parameters.
Performs physical assessment pre-operatively to determine eligibility for transplant.
Communicates all pre-operative findings to anesthesia and surgery.
Assesses pre-medical comorbidities that may affect outcome (diabetes mellitus [DM], hypertension [HTN] coronary artery disease [CAD] and human immunodeficiency virus [HIV]).
Assesses medication list for potential drug-drug interactions, need for continuance, and discontinuance of medications pre-surgery and post-surgery.
Functions as operating room assist within scope of practice and privileges.
Validates ABO and other vital data at recovery and/or receipt of the organ.
Reviews surgical documentation in order to assess post-operative complications: anastomosis, ischemia times, fluid balance, estimated blood loss (EBL) and estimated dry weight (EDW).
Performs emergency management procedures as needed.
Prescribes medications, including controlled substances as delegated in collaborative practice agreement.
Assesses need for pre-operative procedures (i.e., dialysis).
Identifies and responds to educational and psychosocial needs of family/legal guardian during recipient/donor surgery.
Documents all medical evaluations, diagnoses, procedures, treatment, outcomes, education, referrals, and consultations consistent with National Committee for Quality Assurance (NCQA), The Joint Commission, and state regulatory standards.
Provides education and support to nursing staff, house staff, and other members of the health care team.

4. Post-Transplant In-Patient Period

The APTP demonstrates understanding of post-transplant management and is responsible for the coordination of recipients medical care including medications, complications, interventions and discharge planning. APTP demonstrates the ability to collaborate effectively with multidisciplinary team.

The APTP

- Implements clinical pathways, notes deviation for continuous quality improvement (CQI) purposes.
- Identifies appropriate immunoprophylaxis regimens and dose adjustments.
- Initiates appropriate antibiotic prophylaxis, and monitors for evidence of active infection.
- Identifies donor risk factors that may affect outcome (DCD, ECD, donor age, CMV status, and ischemic times).
- Anticipates discharge instructions and patient needs.
- Participates in multidisciplinary rounds.
- Reviews clinical pathway and patient progress to achieve predicted cost and length of stay.
- Educates patients and/or families about preventive care, medical issues and use of prescribed medical treatments and/or medications.
- Documents all medical evaluations, diagnoses, procedures, treatment, outcomes, education, referrals, and consultations consistent with NCQA, The Joint Commission, and state regulatory standards.
- Participates in center-specific quality assurance initiative.
- Effectively identifies, evaluates, and addresses disease prevention and health promotion issues of the population in the practice while administering quality patient care.
- Initiates or alters “the patient’s treatment plan,” to prepare a patient for discharge. Participates in patient education during rounds.
- Predicts and analyzes trends in patient conditions and develops a patient management plan in response to the data obtained.
- Identifies complications, and develops plan for appropriate interventions.
- Monitors adherence to institutional protocol.
- Consults other health care team members in collaboration with physician to meet patient needs, while ensuring continuity of care.
- Provides education and support to nursing staff, house staff, and other members of the health care team.
- Demonstrates compliance with documentation and coding requirements.
- Manages risk factors after transplant (allograft function, risk of rejection against toxicity/infection, risk for recidivism and recurrent disease).

5. Post-Transplant Out-Patient Period

The APTP demonstrates knowledge and ability and is responsible for the care of the transplant recipient in the outpatient setting to achieve optimal physical, social and emotional rehabilitation.

The APTP

- Coordinates the overall medical and surgical management of patients after transplantation by obtaining interim history, reviewing medications and examining patient.
- Conducts follow-up visits after transplant and makes decisions regarding the frequency of follow-up care with the use of a post-transplant protocol.
Educates the patient and family about post-transplant life, immunosuppression and risk of infection, and risk of disease recurrence, and advises when to call the center for concerning symptomatology.

Acts as a patient advocate specifically if re-transplantation is warranted.

Manages immunosuppression and adjustment of medication in response to laboratory results and clinical course independently.

Maintains a working relationship with PCP, and provides medical update and recommendations as appropriate.

Admits patient post-transplant for in-patient care if indicated and if hospital policy allows.

Performs and supervises procedures such as blood drawing, wound care, suture removal, staple removal and drain removal. Consults with surgeon when beyond the nurse practitioner (NP) scope.

Examines and participates in current transplant-related research.

Surveys for recurrent disease, including malignancy, by ordering diagnostic tests, including biopsies and radiologic scans.

Monitors for post-transplant complications and diagnoses, and treats them by ordering consultations, diagnostic procedures and hospitalizations, when needed.

Communicates to the patient the role of the PCP, and reviews this with the PCP to ensure coordination of care and appropriate follow-up.

Assesses the patient’s emotional and social status at visits and refers to psychosocial team when needed.

Assesses the patient’s financial ability to afford medications, and refer to social worker, patient assist programs, or financial counselor, when needed.

Communicates effectively with, and serves as part of, the multidisciplinary team.

Informs the recipient of his/her voluntary option of, and the process for, written communication to the donor family.

Collects and reports data pertinent to recipient health and organ function to OPTN/UNOS.

Verbalizes the post-transplant protocol, and serves as a resource for internal and external health care providers.

Recommends and reinforces the need for health care maintenance according to transplant-related guidelines (pap smears, mammograms, immunizations, colonoscopies).

Identifies appropriate vaccinations post-transplant and prescribes as indicated.

Maintains accurate and legible documentation of the recipient progress.

Utilizes evidence-based medicine to develop the protocol for management of the transplant recipient.

### 6. Living Donation

The APTP will demonstrate knowledge of the living donation/transplantation process and will utilize that knowledge to evaluate, coordinate and manage the care of the living donor for evaluation and throughout the live organ donation process.

**The APTP**

- Identifies appropriate live donor candidate upon referral.
- Identifies requirements for, and maintains confidentiality of, the living donor evaluation.
- Educates patient about living donation, and ensures process of informed choice has been followed according to transplant center protocol.
- Utilizes evidence-based medicine to develop the protocol for evaluation of the potential live donor.
- Serves as a member of the multidisciplinary team to evaluate the potential live donor candidate.
- Conducts the age-appropriate donor evaluation, including a complete history and physical exam and medical testing not limited to:
  - Medical/surgical evaluation
  - Psychosocial evaluation
  - Educational assessment
  - Laboratory evaluation
  - Radiological evaluation
  - Cardiopulmonary evaluation
  - Nutritional evaluation
  - Genetic testing, if necessary (including required consents)

- Interprets serological results of the potential live donor candidate and their implications for safe transplantation.
- Interprets medical test results of the potential live donor candidate and their implications for safe donation and acceptable donor organ quality.
- Obtains blood type, tissue typing and cytotoxic antibodies according to transplant center protocol.
- Identifies possible co-morbidities in the live donor candidate and performs the evaluation as indicated.
- Refers to specialist as needed.
- Conducts an assessment for presence of malignancy before listing.
- Identifies absolute and relative contraindications to donation.
- Confirms that the donor’s candidacy is based upon the program’s selection criteria.
Identifies and responds to the psychosocial and economic needs of the live donor candidate/family/legal guardian during evaluation.

Collects and evaluates medical, psychosocial and financial data for review by donor advocate team.

Communicates with referring physicians, other health care providers, payors and transplant team members regarding the candidate’s status and evaluation outcome.

Demonstrates knowledge of, and compliance with, live donor OPTN/UNOS policies.

Documents pertinent information to ensure continuity of care/coordination.

Applies knowledge of growth, development, educational and cultural background during live donor candidate and family interactions.

Educates live donor candidate and family about the evaluation, donation, and hospitalization process, risks and benefits, and short-term/long-term, follow-up care and documents accordingly.

Educates live donor candidate and family about the recipient diagnosis, prognosis, risk of recurrent disease, alternative to transplant, risks and benefits, and short-term/long-term follow-up care and documents accordingly.

Identifies donor’s learning needs, coping skills, decision-making process, long-term expectations and commitment regarding the donation process.

Identifies and responds to the educational, psychosocial and economic needs of the live donor candidate and family during evaluation/surgical procedure and post-operative course.

Participates in the determination of a potential live donor’s suitability to donate for transplant according to transplant center protocol and OPTN/UNOS regulations.

Provides medical management pre-donation and post-donation, and initiates psychosocial consultation once scheduled for surgery.

Monitors and manages complications for live donor surgery.

Performs routine medical follow-up of live donor according to OPTN/UNOS guidelines and center-specific protocol.

Maintains/ensures communication with donor’s primary physician, other health care providers and payors throughout the evaluation phase, surgical procedure and post-operative recovery.

Provides and maintains comprehensive documentation of living donor’s progress according to transplant center protocol.

Explains the role of the living donor advocate member/team, and serves as a member of this team.

7. Professional Development

The APTP demonstrates proficiency and continual growth in the knowledge of transplantation.

The APTP

- Holds a minimum of a master’s degree or equivalent.
- Obtains and maintains national certification germane to their profession (other than the American Board for Transplant Certification [ABTC] Certified Clinical Transplant Coordinator [CCTC]).
- Reviews and integrates into practice the current professional literature in the field of transplant.
- Presents topics at practice-related conferences.
- Researches and publishes review articles pertaining to transplant care and updated knowledge in peer reviewed journals.
- Shares data at practice-related conferences contributing to evidence-based practice.
- Participates in professional procurement/transplant organizations.
- Examines current transplant-related research.
- Shares knowledge through mentoring/precepting newly hired Advanced Practice Professionals.
- Participates in and supports ongoing clinical research within the transplant center, and publishes results as appropriate.
- Examines and participates in current transplant-related research.

8. Professional Practice

The APTP demonstrates understanding and the ability to assume responsibility for individual judgments to achieve the highest quality of care for the transplant candidate, recipient, family and living donor.

The APTP

- Acknowledges and evaluates ethical considerations in organ allocation and medical resources.
- Maintains the highest standards of professional conduct.
- Assures informed consent for live donation and transplantation.
- Assures equitable access for patients into the allocation system.
- Assures access for patients to treatment alternatives.
- Protects the rights of patients, their families/legal guardians, and health care team members.
Respects individual privacy and holds confidential all information obtained in the course of practice.

Assures open and clear communication with patients, families and health care team members without bias or discrimination.

Plans, conducts and evaluates educational activities for patients, families/legal guardians.

Plans, conducts and evaluates educational presentations, workshops and seminars utilizing materials developed for professional education.

Assures that quality and performance improvement standards are developed, implemented and maintained.

Evaluates self-performance by comparing actual outcomes to expectations.

Maintains current knowledge of and complies with institutional policies and procedures.

Monitors recipient referrals and transplant outcomes to meet performance standards required by OPTN/UNOS, CMS, employer and personal expectations.

Maintains cooperative relationships with other health care professionals.

Acts to protect the public trust when health care and safety are endangered.

Assists Organ Procurement Organizations (OPOs) and other community organizations with educational presentations and information appropriate to the needs of transplant professionals and the public.

Reviews, evaluates and revises educational materials and programs for transplant-related practice.

**Abbreviations**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ABTC</td>
<td>American Board for Transplant Certification</td>
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<td>APTP</td>
<td>Advanced Practice Transplant Professional</td>
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<td>CMS</td>
<td>Center for Medicare and Medicaid Services</td>
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<td>CCTC</td>
<td>Certified Clinical Transplant Coordinator</td>
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<td>NATCO</td>
<td>NATCO, The Organization for Transplant Professionals</td>
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<tr>
<td>OPO</td>
<td>Organ Procurement Organization</td>
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<td>OPTN</td>
<td>Organ Procurement and Transplantation Network</td>
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<td>PCP</td>
<td>Primary Care Provider</td>
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<td>UNOS</td>
<td>United Network for Organ Sharing</td>
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