Starting a Transplant Psychiatry Service: A How-To Guide

ACLP Transplant Psychiatry Working Group 2024-2025

Aim: To provide consultation-liaison psychiatrists (CLP) with a framework and practical steps for developing, launching, and maintaining a successful transplant consultation service, ensuring that patients receive high-quality, multidisciplinary care throughout their transplant journey.

Method: To create this guide, a reflective group meeting was held with the writing committee, involving individuals from various stages and settings in the transplant field, to evaluate current needs, potential adjustments, and challenges.

How to use this document: This document offers a foundational guide and a checklist of organizational features relevant to consultation-liaison psychiatrists when considering , starting, or expanding a transplant psychiatry service. This document is not intended to offer a best-practices appraisal. Further customization and adaptation may be required to fit your institution's specific needs and resources.

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I. Background

Transplant psychiatry is a subspecialized field that addresses the psychological, psychosocial, and psychiatric aspects of solid organ transplantation. This service is crucial for evaluating, supporting, and caring for transplant candidates, recipients, patient support systems, and living donors.

Establishing a transplant psychiatry service involves a multidisciplinary approach, integrating medical, psychological, and social aspects to optimize outcomes for patients undergoing transplantation and living donation.(1)

The importance of psychiatric services aimed specifically at serving transplant patients is highlighted by the following aspects of transplant care:

1. **Psychological Impact of Transplantation:** Transplant candidates often experience significant psychological stress related to their illness, the evaluation and transplantation process, and post-transplantation adaptation. Common issues include anxiety, depression, post-traumatic stress disorder (PTSD), and adjustment disorders.
2. **Prevalence of Psychiatric Disorders:** Psychiatric disorders and substance use disorders are prevalent among transplant candidates and recipients, highlighting the necessity for dedicated psychiatric assessment and intervention .
3. **Limitations of mental health services:** In addition to the general shortage of mental health services in the US, the care of transplant patients requires additional levels of biomedical and psychosocial expertise, as the clinical course is marked by unique ongoing needs. Close collaboration between mental health clinicians and the transplant team is important but often challenging to implement in community mental health settings. A transplant psychiatry service is integral to holistic, patient-centered care, addressing both the medical and psychological needs of patients and ensuring better overall outcomes.(2-4)
4. **Behavioral Impacts on Transplantation:** Psychiatrists have a unique set of skills and knowledge that can mitigate risks related to behavioral factors that lead to graft loss such as medication adherence, communication, health literacy, and cognition.

II. Establishing the Service

1. **Needs Assessment:** Conduct a thorough needs assessment to determine the scope and demand for transplant psychiatry services within your institution. This involves analyzing patient demographics, transplant center volumes, and existing mental health resources. The following data sources can inform the need for mental health clinicians for transplant programs:
    A. Regulatory: United Network for Organ Sharing (UNOS)/ Organ Procurement and Transplantation Network (OTPN) guidelines and recommendations
    B. Prevalence of psychiatric problems in specific transplant groups
        i. Literature review
        ii. Center-based chart review/utilization measures (EHR-based tools may offer insights into the prevalence of psychiatric illness based on ICD codes or embedded structured measurements like PHQ scores)

iii. Clinical anecdotes where psychiatric disorders affected transplant outcomes and/or psychiatric interventions had a positive impact (5)

C. Clinical volume data

i. Number of patients evaluated at your center by organ group

ii. Number of transplants performed at your center by organ group

iii. Number of post-transplant patients followed by your center

iv. Staffing structure at established transplant centers (FTE psychiatry/number of transplants)

v. Type/length/frequency of medical follow-up provided

2. **Stakeholder Engagement:** Ideally, the request for transplant psychiatry services originates from within the transplant service leadership. At times, psychiatrists will propose a service line specific to transplantation. Regardless of who initiates the process, the psychiatrist must collaborate with key stakeholders early in the process. Key stakeholders include transplant surgeons, physicians, nurses, social workers, coordinators, and hospital administration. In addition, patients' support or community advocacy groups, when available, can further support the need for mental health support for transplant patients. Emphasizing the importance of transplant psychiatry can garner support and resources. Transplant psychiatry services bring value to a transplant program through improving clinical care by addressing psychiatric problems that arise, improving health care behaviors (such as medication adherence) which impact transplant outcomes, reducing last minute surgery cancellations related to psychiatric/psychological episodes, supporting regulatory readiness and increasing the overall quality of care.

   Understanding the funding sources during the initiation of transplant psychiatry service can foster later growth and development. Common funding sources include: transplant center, general hospital, private donations, billing for services. The funding model must support a clinical practice in which patient volume is unpredictable and a significant portion of the provider's effort (liaison, meetings, education) is not billable.

III. Developing a Service Model

Unpublished data presented at ACLP conference (Deka et al) showed a significant mismatch between the expectations of transplant medical providers about mental health services and what services are provided by psychiatrists. In collaboration with the transplant service, define the focus of the clinical work provided by the transplant psychiatry clinician(s):

A. Define the population served, which could include some/any of the following:

1. Transplant recipients (pre-listing/post-listing/post-surgery)

2. Living donors (candidates or donors post-surgery)

3. Specific organ groups (e.g. bone marrow patients are often served by oncology services, and mental health services there may require a different structure; vascularized composite allotransplants (VCAs) pose different challenges compared to solid organ transplant patients)

B. Clarify setting of psychiatric evaluation and ongoing care: inpatient/outpatient/both inpatient and outpatient.
   a. Inpatient transplant psychiatry consultation
      i. "traditional" consultation liaison model. Primary team requesting psychiatry input. This can be embedded with the general Consultation Liaison Psychiatry Services or a separate "transplant psychiatry consult" line may be created, with separate referral process and staffing.
      ii. Proactive consultation. Transplant patients admitted to a general hospital receive psychiatric consultation and follow up according to a pre-established algorithm.
   b. Outpatient transplant psychiatry services. There are three main models for establishing mental health services for the medically ill:

1. Independent: mental health evaluation and care occur at a general mental health facility. A team of mental health providers with more expertise in CLP/transplant may be assigned transplant cases. All logistical issues are managed through psychiatry. The EHR system may be shared, but there are often barriers related to the need to protect the confidentiality of patients treated in the mental health center. The advantages of this model include a lack of pressure from the hospital or other medical providers regarding the evaluation's timing or outcome. The disadvantages are related to reduced awareness of the patient's status in the transplant process and additional effort needed to understand the patient's medical status. There might be insurance barriers to full psychiatric support.

2. Co-located: psychiatric services take place in the same location as medical services; but they are logistically independent. Psychiatric care can continue if patients are no longer transplant candidates or under the care of the transplant team. With this model, communication about medical status and transplantation status is easier, but psychiatrists may feel additional pressure from medical providers, hospital administrators or recipient-donor pairs.

3. Embedded: mental health services are provided only to patients active in the transplant clinic. Support services (schedulers, clinic space) are shared, mental health clinicians participate in transplant-related meetings (clinical/administrative). The pros and cons of this model are similar to that of the co-located model, with the additional lack of autonomy regarding logistical aspects of the practice (e.g. schedulers may not be able to handle concerns about mental health care).

C. Define the scope of psychiatric services:

i. Risk stratification: define the desired format (yes/no vs. low/medium/high risk)

ii. Clinical care: pre-listing/while on waitlist/post-transplant – including duration post-transplant; types of interventions provided (psychopharmacology, psychotherapy or others)

IV. Defining the outputs expected from the transplant psychiatry service

In addition to clinical care, the transplant psychiatry service can assume a number of roles within the transplant team. Due to the typically large size and complexity of the teams, it is imperative to establish responsibility for each aspect of the work. The following activities could be part of the transplant psychiatry teams' purview:

1. Clinical encounters
    a. In person/ telepsychiatry/telephone
    b. Individual/group sessions
    c. Inpatient/outpatient/both inpatient and outpatient
2. Care coordination (reviewing the referrals, collaboration with social workers, participating in multidisciplinary meetings, liaison with community mental health centers).
3. Training
    a. Medical students
    b. Residents (psychiatry or other medical disciplines)
    c. Fellows (psychiatry or other medical disciplines)
    d. Transplant staff (transplant coordinators, schedulers who help with mental health appointments)
    e. Teaching activities (journal clubs, grand rounds, presentations; on site or outreach that may require travel).
4. Networking (in-house, outside)
    a. Fundraising
    b. Community education events (e.g. organ donation awareness)
    c. National organizations or conferences
5. Facilitation of in-center and outside psychiatric care
    a. Multidisciplinary meetings

b. Coordinating with CLP service

c. Emergency coverage

d. Coordination with outpatient mental health providers

6. Generating/updating specific policies (internal, external). Quality improvement projects.

V. Define resources necessary for transplant psychiatry service

Based upon the roles/tasks established to fall under the purview of the transplant psychiatry service, some combination of the following resources will be necessary to accomplish the work:

1. Staff/team members (6)

    a. Psychiatry

    b. Psychology

    c. Addiction specialists (if a,b, are not addiction-trained)

    d. Peer Specialists

    e. Social work

    f. Behavioral health navigators

    g. Access to other consultants: palliative care, sleep medicine, neuropsychological testing, Laboratory

    h. Billing/coding/Pre-authorization for psychiatric services or medications

    i. Scheduling

    j. Time supported [by transplant program/other funding sources] for these individuals

    k. FTE clinicians: MD, advanced practice practitioner (APP), SW, psychology, behavioral health navigators

2. Logistical support

    a. EHR Support

    b. Telehealth resources and technical support

    c. Licensing support (if care occurs across state lines) and credentialing support (if care occurs at multiple sites)

    d. Do not forget the patient's time: for instance, if psychiatric evaluation is to occur at the first clinic visit, time must be allotted for this.

3. Money/Departmental Funds

    a. Certain structured instruments may require training, other fees

4. Research resources
    a. Research staff/laboratory/data base management; would the psychiatrist have access to transplant research resources
    b. Support for access to national databases (OPTN/NIH related databases, organ-specific databases)
    c. Mentorship. In addition to mentorship from the psychiatry department, research in transplant psychiatry often requires understanding of specifics of transplant-related research and transplant (surgery, internal medicine) faculty may be the best to learn from.
5. Overhead/space
    a. Clinic space [and considerations of how this impacts patient billing if hospital- vs clinic-based, etc]
    b. Office space
    c. Lab space or access
6. Community mental health services
    a. How/when does referral to community resources occur

VI. Design the workflow of clinical services

Establishing workflow will be a major step in establishing transplant psychiatry services. Key considerations are listed below:

1. Who refers to the psychiatry transplant service
2. Who completes an initial mental health screening and how this is accomplished
3. What tools are implemented into all evaluations [EHR templates, structured psychosocial transplant evaluation instruments, mental health and substance use disorder screens]
4. Before transplant: do evaluations result in a yes/no or risk rating (high/medium/low) or simply identifying active psychiatric problems and making recommendations?.
5. Who delivers pre-transplant mental health interventions (evaluating transplant psychiatrist versus patient is referred out for additional care)
6. What level of care, and for what duration, do recipients receive post-transplantWhen and how are patients referred to community resources for ongoing mental health care.

7. For programs that evaluate living organ donors, special considerations may be needed regarding staffing (are donors and recipients evaluated by the same psychiatric team or by separate teams) and confidentiality.

Once a workflow and the team structure is established, the roles and responsibilities of each team member (SW, psychiatrists, psychologist, etc) should be clarified. Plan to review the workflow periodically as transplant population and clinical needs may change.

If follow-up care is provided, consider the criteria for follow-up and for termination. For example, one center may provide psychiatric care to all patients in need on the transplant list or after transplantation; while others might be more selective.

VII. Training and Education

1. **Staff Training:** Transplant psychiatrists often provide specialized training for psychiatrists, psychologists, and other mental health professionals on the unique aspects of transplant psychiatry. This includes understanding the medical aspects of transplantation and the specific psychological challenges faced by patients.
2. **Education for Transplant Team:** Educate the transplant team on recognizing and addressing psychiatric issues. This can be achieved through regular workshops, seminars, and multidisciplinary meetings.(7)
3. **Continuing medical education**. Transplant psychiatrists must keep their knowledge updated not only for new developments in psychiatry but also about major changes in transplantation, which may require additional time and support.

VIII. Ethical and Legal Considerations

1. **Informed Consent:** Ensure that patients and donors are fully informed about the psychological risks and benefits associated with transplantation. This includes discussing the potential need for psychiatric support.
2. **Confidentiality and Privacy:** Clarify the confidentiality of psychiatric care provided. Typically, the information discussed during assessments is shared with the medical team in the transplant setting. It is important that patients are aware of the confidentiality rules within the service, including for ongoing care. Understand hospital policies and procedures about open notes.
3. **Ethical Dilemmas:** Expect difficult ethical questions. Clarify the process of addressing it together with the transplant team and the role of ethics consultants.(8)

IX. Monitoring and Evaluation

Performance monitoring will focus on two key areas: evaluating both the outcomes and the processes involved. This evaluation will center on six main pillars: access to care, effectiveness, efficiency, equity, patient-centered care, and safety.

1. **Outcome Measures:** Develop metrics to evaluate the effectiveness of the transplant psychiatry service. This includes tracking patient outcomes, psychiatric symptomatology, and overall satisfaction with the service. For any measure you choose, please consider if you expect changes in that measure in the short /medium/long term and plan accordingly. Here are some examples:
    a. .
    b. Volume: number of clinical visits, RFUs, number of individual patients; how does this compare to other centers
    c. Process-related measures: e.g., time from referral to transplant listing (psychiatry may help speed this up), time from referral to transplant psychiatry to date of assessment.
    d. Transplant outcome measures (e.g., graft loss, death, hospitalizations) are often built into the transplant service already. Before adopting them as a measure for transplant psychiatry work, please consider the multiple confounding factors unrelated to psychiatry.
    e. Changes in: - see Appendix A
2. **Continuous Improvement:** Regularly review and update service protocols based on patient and transplant team feedback. Implement evidence-based practices and stay abreast of advancements in transplant psychiatry.

X. Integration with Broader Health System

1. **Referral System:** Establish a robust referral process to ensure timely access to psychiatric services. This involves creating clear pathways for referring patients to the transplant psychiatry service, reviewing referrals, and scheduling.
2. **Community Resources:** Collaborate with community mental health resources to provide ongoing support for transplant patients and their families. This helps bridge gaps in care and provides a continuum of support.
3. **Public Awareness:** Raise awareness about the importance of mental health in transplantation. Participate in public health campaigns and collaborate with patient advocacy groups to promote mental well-being among transplant patients.

Conclusion

Starting a transplant psychiatry service is a vital step toward comprehensive transplant care. By addressing the psychological needs of transplant candidates, recipients, and donors, this service can significantly enhance the overall quality of care and improve transplant outcomes. Through a

multidisciplinary approach, robust service framework, and continuous evaluation, a successful transplant psychiatry service can be established to support patients throughout their transplant journey.

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Appendix A: Monitoring and Evaluation Framework

Metric	Short term	Intermediat- term	Long term
Process			
Referral and Waitlist	Time to referral, wait time (referral to first evaluation)	Wait time (evaluation to final disposition) Record referral trends by ethnicity to ensure equity	Wait time last 12 months, Assess the impact on service accessibility
Volume	Number of clinical visits. Evaluation visits, appointment no-shows RVUs	Comparison of patient numbers across centers	Longitudinal analysis of service demand number of evaluation visits, appointment no-shows
Process related measures	Time from referral to psychiatry assessment	Time from referral to transplant listing	Analysis of psychiatry's impact on listing efficiency
Outcome measures			
Transplant outcome measures	Initial patient health evaluations	Monitoring confounding factors affecting psychiatric care	Long-term graft loss, mortality, and hospitalizations
Health outcomes	Improvement in psychiatric symptoms	Reduction in complications and hospitalizations	Reduction in mortality, rejections, and infections
Behavioral changes	Early identification of psychiatric issues	Reduction in transplant postponements Reduction of no-show rate	Long-term patient adherence to psychiatric treatment
Health Literacy	Patient Knowledge on post-transplant psychiatric issues	Adaptation to transplant-related psychiatric challenges	Long-term literacy improvement
Attitudes and satisfaction	Initial patient and staff feedback	Periodic satisfaction survey	Comprehensive analysis of staff and patient satisfaction over time
Quality of life	Baseline assessment	Mid-term reassessment	Long-term Qol improvement

Appendix B : quality metrics(1-3)

Category	Metric	Short-term	Intermediate-term	Long-term
Access to care	Time to referral and wait time tracking	Identify Barriers to access	Improve referral pathways	Assess the long-term impact on accessibility
Effectiveness	Improvement in psychiatric symptoms	Early symptom identification	Reduction in psychiatric complications	Reduction in hospitalization
Efficiency	Time from referral to psychiatry assessment	Optimize referral workflows	Reduce time from referral to listing	Evaluate the impact on transplant timelines
Equity	Referral trends by race and ethnicity	Collect demographic data	Address disparities in psychiatric support	Improve equitable access to psychiatric care
Patient centered care	Patient and staff satisfaction	Initial patient and staff feedback	Periodic satisfaction surveys	Long-term QoL improvement
Safety	Reduction in transplant postponements	Identify psychiatric risk factors	Implement targeted interventions	Reduce transplant cancellation, readmission rate

Appendix B references

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