Chapter 5 Social Work: Evaluation and Social Supports



Nancy J. Boyle and Keren McCord

Introduction

Hematopoietic cell transplant (HCT) and emerging therapies, such as chimeric antigen receptor T (CAR-T), are complex treatments that often result in high levels of psychological distress and social/financial strain for patients and their families. These procedures and the ensuing recovery can test even the most adaptive, functional patient and support system. Indeed, psychosocial issues often the most vexing for transplant teams.

HCT patients and their support teams require information, as well as physical and emotional resources, in order to maximize the benefit of the procedure. Each patient brings their past medical, emotional, financial, and personal experiences, which impact their ability to tolerate the ardors of transplant.

Five phases of the HCT process have been described:

- 1. The decision to undergo HCT
- 2. Pre-HCT preparation
- 3. HCT hospitalization
- 4. Hospital discharge and early recovery
- 5. Long-term recovery

This chapter will focus on the psychosocial issues along this continuum.

Each patient has a unique diagnosis, staging, and comorbidities that affect their journey through transplant. Psychologically, an individual adjusts to each transition utilizing their adaptive to maladaptive coping mechanisms. An early study on "returning to normal" revealed that patients least likely to report return to normalcy were those with unrealistic expectations. While there will be patients who will

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N. J. Boyle $(\boxtimes) \cdot K$. McCord

Patient and Family Support Services, Knight Cancer Institute, Oregon Health & Science University, Portland, OR, USA e-mail: boylen@ohsu.edu; mccordk@ohsu.edu

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remain unrealistic, a majority can be assisted by providing realistic information and support [1].

A patient-centered approach is at the forefront of new accreditation standards for hospital cancer programs released by the Commission on Cancer (CoC) of the American College of Surgeons (ACS). Four national cancer patient support/advocacy organizations worked closely with the CoC to develop patient-centered standards to better enable cancer patients to work with their interdisciplinary cancer treatment team: American Cancer Society, Cancer Support Community, National Coalition for Cancer Survivorship, and LIVE**STRONG**TM. The CoC includes *Distress Treatment Guidelines for Patients* as a standard to be established for accreditation [2].

Distress in pre-HCT patients was first described in 1997 as demonstrated by scores on the Profile of Mood States Scale. Study results showed that a decreased sense of control (intrapersonal mastery) and a decreased sense of optimism were related to a higher level of distress [3]. In a 2006 study, it was identified that pretransplant distress is highly predictive of posttransplant distress, and there was a statistically significant association between self-reported distress and medication noncompliance [4]. The Distress Thermometer (DT) with HCT patients, when studied for validation in comparison to the Center for Epidemiological Studies-Depression Scale (CES-D) and the State–Trait Anxiety Inventory-State Version (STAI-S), showed that the single-item DT compares well with the longer measures to assess psychological distress [4]. The DT cutoff score of 4 supports significant distress to warrant further assessment, and while the DT is being promoted as a screening tool by the National Comprehensive Cancer Network (NCCN), they suggest a cutoff of 5 or above for further assessment [5]. Additional studies are indicated in the HCST population.

Seven causes of distress in patients who undergo HCT have been identified [6] (Siegel, 2008):

- 1. Uncertainty regarding treatment outcome, recurrence, and mortality
- 2. Impact of treatment on their family
- 3. Changes in appearance and impact on sexuality
- 4. Long-term burden of treatment such as reduced functional status
- 5. Interaction with the medical system
- 6. Communication with medical personnel and obtaining information
- 7. Financial considerations, such as insurance coverage, the cost of treatment, and supporting self/family

Although no consensus guidelines regarding psychosocial eligibility for HCT have been developed, there are data identifying psychosocial factors associated with pre-HCT vulnerability that influence outcomes. In a study of HCT clinicians deciding whether to proceed with transplant given specific psychosocial risk factors, 75% of responding physicians recommended not to proceed in cases of suicidal ideation, use of illicit drugs, and history of noncompliance while 69% recommended not to proceed in cases where no caregiver support was identified [7].

Psychosocial issues have been studied in the solid organ transplant population, as these patients require psychosocial evaluation prior to being added to the transplant waiting list. In HCT, psychosocial evaluation is required for all donors and recipients. Pretransplant screening for HCT has borrowed from solid organ transplant in the format of the Psychosocial Assessment of Candidates for Transplant (*PACT*) and Transplant Evaluation Rating Scale (*TERS*) [8–11].

While transplant programs vary in size and funding, there is value in having a mental health professional assess a patient's ability to withstand the psychological stresses of HCT, including assessment of preexisting psychiatric morbidities [12]. Individuals with anxiety and depression are at risk for poor health outcomes [13]. Patients who experience overall mood, anxiety, or adjustment disorders have 8% longer length of stays [14]. Pre-HCT screening can identify patients who are at higher risk of readmission and would benefit from additional services, including psychiatry, counseling, and increased navigation [15, 16].

Psychosocial Evaluation and Assessment

The key aspects for assessment are the characteristics and needs of the patient, family, and caregiver(s) including financial status, employment/disability, insurance, past/current mental health, and/or substance abuse history, and details about their care plan: who, what, and where.

- 1. Demographics
 - a. Marital status
 - b. Family composition
 - c. Current living situation
 - d. Developmental stage
 - e. Formal education
 - f. Legal issues
 - g. Children's issues/preparation
- 2. Employment and financial information
 - a. Employment and/or disability status
 - b. Source of income
 - c. Primary wage earner
 - d. Insurance status
 - e. Out-of-pocket obligation
 - f. Prescription coverage
 - g. Ability to maintain insurance and income
 - h. Other (alimony, outstanding debts, financial planning, Power of Attorney, etc.)
- 3. Cognitive/mental health/substance abuse
 - a. Cognitive deficits
 - b. Literacy
 - c. Learning ability

- d. Mental health history, including trauma history, hospitalizations, need for medications.
- e. Psychiatric medications
- f. Counseling or hospitalization history
- g. Significant recent stressors (marriage, divorce, death, job loss, moves, etc.)
- h. Substance abuse history
- 4. Coping Skills
 - a. Strengths/weaknesses
 - b. Coping approach
 - c. Avoidance mechanism
 - d. History of significant losses
 - e. Use of alternative/complementary treatments
 - f. Adaptation to illness
- 5. Relationships/support systems
 - a. Partner relationship (cohesion)
 - b. Extended family support/availability
 - c. Identification of caregivers
 - d. Familial coping patterns
 - e. Adaptation
 - f. Spiritual/faith-based support
 - g. Cultural traditions, informal and community support
- 6. Medical concerns
 - a. Level of understanding of the HCT process, as well as emerging therapies, including CAR-T.
 - b. Decision-making issues (and agreement of support persons)
 - c. Pain issues
 - d. Expectations
 - e. Optimism
 - f. Ability to make post-HCST plans
 - g. Advance care planning/directives
- 7. Related donor concerns [17]
 - a. Donor experience and understanding
 - b. Recipient's health condition and concerns of the donor
 - c. Decision-making ability and genuine willingness
 - d. Mental preparedness
 - e. Emotional distress
 - f. Family dynamics

Preparation and Planning

- 1. Issues
 - a. Comprehension of the medical circumstance (e.g., remission vs recurrence, intensity of therapy, prognosis)
 - b. Mode of learning of the patient and caregiver (i.e., written or verbal? Are they literate? Is English their primary language?) [18]
 - c. Informed consent and decision-making
 - d. Anxiety/fear
 - e. Practical arrangements (e.g., distance from the transplant center, housing arrangements, caregiver support)
- 2. Interventions
 - a. Education about medical status and proposed treatment, as well as duties and duration of commitment of a caregiver
 - b. Maximizing information delivery (e.g., repetition, multiple formats including written information, audio-visual aids, support groups, internet sites)
 - c. Institution-specific expectations and requirements
 - d. Preparative counseling
- 3. Referrals
 - a. Educational classes are a way to reinforce prior teaching and discussions with HCT staff; orient the patient to the hospital campus, the inpatient unit, and outpatient clinic; begin discharge planning; review advance directives and patient/caregiver agreement forms; and provide a forum to share anxiety and distress.
 - b. Connect with community resources, such as the Leukemia & Lymphoma Society, Medicaid, counseling services, etc.
 - c. HCT assistance resources available on the Internet (see Table 5.1).

Active Treatment - Inpatient and Outpatient

- 1. Issues [19]
 - a. Patient/caregiver anxiety and uncertainty about the HCT process and outcome
 - b. Disruption of patient/family roles
 - c. Fears of recurrence, infection, death
 - d. Interpersonal stressors (e.g., poor coping strategies, mental health issues, and so on)
 - e. Uncertainty about discharge plans

Organization	URL
Transplant resources	
Be the Match	www.marrow.org
Blood & Marrow Transplant Information Network (BMT Infonet)	www.bmtinfonet.org
National Bone Marrow Transplant Link	www.nbmtlink.org
General resources	
American Cancer Society	www.cancer.org
Camp Kesem	https://campkesem.org/
Camp Koru	https://www.projectkoru.org/camp-koru
Camp Mak-A-Dream	www.campdream.org
Cancer.net	www.cancer.net
Cancers and Careers	www.cancerandcareers.org
Cancer Legal Resource Center	www.disabilityrightslegalcenter.org
Losta Helping Hands	www.lotsahelpinghands.com
LIVESTRONG	www.livestrong.org
Leukemia & Lymphoma Society	www.lls.org
Lymphoma Research Foundation	www.lymphoma.org
Multiple Myeloma Research Foundation	www.multiplemyeloma.org
Financial resources	
Be the Match	http://bethematch.org/For-Patients-and-Families/Getting-a- transplant/Planning-for-transplant-costs/ Financial-Assistance-for-Transplant-Patients
Disability Rights Center	https://thedrlc.org
Bone Marrow Foundation	www.bonemarrow.org
CancerCare, Inc.	www.cancercare.org
Patient Advocate Foundation	www.patientadvocate.org
RX Assist	www.rxassist.org

 Table 5.1
 HCT Internet resources (see also Chap. 9 for AYA-specific resources)

- 2. Interventions
 - a. Negotiate personal control
 - b. Build on previous experiences/successes
 - c. Ongoing self-assessment and training
 - d. Educate about the outpatient process (e.g., medications, expected appointments, availability of 24-hour medical advice/support)
 - e. Provide or refer for cognitive-based interventions (mindfulness-based stress reduction, cognitive-behavioral therapy, dialectical behavioral therapy)

Immediate Short Term

- 1. Issues [20, 21]
 - a. Transition to outpatient setting post-HCT
 - b. Increased stress on relationship between patient and caregiver
 - c. Caregiver burden and feelings of incompetence
 - d. Patient's dependency and loss of control
 - e. GvHD risk in allogeneic recipients
- 2. Interventions
 - a. Assess the meaning of uncertainty and stressors
 - b. Evaluate burdensome tasks
 - c. Assist patient/family to identify and mobilize available resources
 - d. Assist in evaluating relationship enhancements
 - e. Assure continuation of medical support/management in transitions to outpatient setting
 - f. Encourage caregivers to engage in physical and emotional self-care
 - g. Refer to appropriate community resources (i.e., financial, home health, counseling, and so on)

Long Term/Survivorship

- 1. Issues [22]
 - a. Transition back to home, work and/or previous family roles
 - b. Changes in patient's emotion and physical function due to complications and long-term effects of HCT
 - c. Fear of recurrence
 - d. Feelings of "being different"
- 2. Interventions
 - a. Assess transitional needs and provide referrals to the Department of Vocational Rehabilitation, Social Security Disability, etc.
 - b. Evaluate the effect of complications/late effects on relationships
 - c. Problem-solve positive steps to build on strengths
 - d. Survival techniques
 - e. Support groups and reunions for survivors (NBMTlink webinars, Peer to Peer, BMTinfonet, etc.)

End-of-Life Care

- 1. Issues [23-25]
 - a. Emotions including fear, sadness, failure
 - b. Effects on the family, especially young children
 - c. Physical changes, pain, comfort
 - d. Spiritual needs
 - e. Home vs. hospital vs. skilled facility
- 2. Intervention [26]
 - a. Assess the source of expressed emotions
 - b. Assess the impact on the family and assist with children, involve Child Life Services when appropriate
 - c. Foster hope
 - d. Consider home hospice as an option for patient and family
 - e. Advocate with the provider team and family to meet the patient's wishes as possible
 - f. Identify healthcare surrogate
- 3. Special considerations
 - a. Patient questioning if they should have had the transplant? Did it matter?
 - b. Related donor's grief and feelings about transplant outcome. Are they responsible for the outcome?

Palliative Care and Hematologic Malignancies (See Also Chap. 48)

The American Society of Clinical Oncology (ASCO) has developed recommendations regarding the delivery of palliative care to all oncology patients. They encourage the integration of palliative care into the ongoing provision of oncology treatment. ASCO has set a vision of comprehensive cancer care to include routine palliative care in the United States and several other countries by the year 2020. An interdisciplinary team is required to provide comprehensive palliative care [27].

A U.S. retrospective study showed patients with a hematologic malignancy accessed palliative care less frequently than those with solid tumors (11% vs. 89%, respectively) [28]. Research suggests that while hematology staff are aware of the needs for palliative care, the lack of access and integration to care has an adverse effect on families and caregivers. Qualitative analysis suggests family members were aware of impending death, but were reluctant to speak to staff and felt inadequately assisted in preparing for the dying experience.

Barriers to integration of palliative care in the setting of hematologic malignancies include [29, 30]:

- 1. The course of the illness
- 2. Availability of community resources including hospice support with no reimbursement for palliative care or ongoing transfusion support
- 3. Unpredictability of the illness
- 4. Unclear goals of care
- 5. Availability of early phase clinical trials and the patient's comprehension of the study objective
- 6. Availability of ongoing supportive therapies
- 7. Psychological dependency and the ongoing relationship between patient/family and providers

Provider skills needed for the provision of palliative care [31]:

- 1. Assessment
- 2. Information sharing
- 3. Decision-making capacity
- 4. Ability to determine the patient's capacity for decision making
- Ability to clearly define goals of care. Discuss code status and Physician Orders for Life Sustaining Treatment (POLST). If inpatient, coordinate between providers on goals of care discussions.
- 6. Capacity for an objective discussion of withdrawal of therapy
- 7. Openness to discussion of Death with Dignity where state statutes allow
- 8. Advance care planning and delivery
- 9. Surrogate decision-making
- 10. Conflict resolution
- 11. Affirmation of patient/family understanding, satisfaction, concerns

Caregiving Needs and Requirements

Individuals who undergo HCT and CAR-T require caregiver support until otherwise told by their medical provider team. Autologous HCT and CAR-T recipients typically require a 24-hour caregiver for approximately 2–3 weeks after discharge from the hospital while allogeneic HCT recipients may require a caregiver anywhere from 2 to 6 months depending on complications that may arise.

Changes in healthcare delivery systems and policy highlighting reduction of costs have moved much of the HCT process from the inpatient to the outpatient setting, which may extend the caregiver's commitment by weeks to months. These changes also extend the caregiver's responsibilities, as greater involvement during the earlier phases of HCT is required. Payer contracts may not reimburse for post-HCT caregiver support. Therefore, the responsibility lies with the patient's natural supports, that is, family members or friends. This incredible commitment requires even further time away from work and other personal responsibilities.

Psychosocial Impact of Caregiving and Protective Factors

While there has been a breadth of research that explores the psychosocial implications for the HCT recipient, less is known about the experience of the caregiver. Research has shown that the psychosocial health of the caregiver has a direct impact on the health and well-being of the patient [32]. Caregivers suffer from anxiety and depression, sleep deprivation and fatigue, sexual dysfunction, and greater vulnerability to illness, and may experience fear, frustration, and isolation. Adaptation of the caregiver is important not only for his/her own well-being but also in achieving optimal patient outcomes. It has also been shown that caregivers will avoid reporting their own distress for fear that this will distract from the care of the transplant recipient [33, 34].

Studies have shown female caregivers tend to report higher levels of distress than male caregivers because they are more likely to assume the role of primary caregiver while maintaining responsibility for the care of the rest of the family. Additionally, small studies suggest females to be more empathetic.

Control refers to the caregiver's ability to maintain a sense of predictability and manageability within their life and the lives of their loved ones. Adaptation to the caregiving role, as indicated by lower levels of distress, was noted in caregivers who reported a higher sense of personal control and spiritual well-being. Providing caregivers with detailed information about a patient's treatment course may offer more predictability. Caregivers who identified with a form of spiritual practice also showed increased adaptation to distress. Their faith allowed them to navigate the burdens of caregiving by applying meaning to their role and the role of illness in the life of their loved one [35].

Developing strategies and interventions to support caregivers can prove to be an important part of a patient's care. It has been shown in studies that caregivers tend to delay self-care activities in order to care for their loved one. This can have a dramatic impact on the health of the HCT patient, which can result in increased length of inpatient hospital stays. Support groups, online resources, and web-based tools to assist caregivers in managing their role are emerging. Additionally, cognitive-behavioral therapy has proven to be an effective modality for HCT patients and their caregivers. These resources are likely to be more beneficial when provided early in the planning process, as coping patterns established early can prove to be an essential part of the overall effectiveness of stress management.

References

2. http://www.fasc.org/cancer/coc/whatis.html.

^{1.} Andrykowski MA, Brady MJ, Greiner CB, Altmaier EM, Burish TG, Antin JH, et al. "Returning to Normal" following bone marrow transplantation: outcomes, expectations and informed consent. Bone Marrow Transplant. 1995;15:573–81.

- 5 Social Work: Evaluation and Social Supports
 - Baker F, Marcellus D, Zabora J, Pollard A, Jodrey D. Psychological distress among adult patients being evaluated for bone marrow transplantation. Psychosomatics. 1997;38(2):10–9.
 - Ransom S, Jacobsen P, Booth-Jones M. Validation of the distress thermometer with bone marrow transplant patients. Psycho-Oncology. 2006;15:604–12.
 - Bevans M, Wehrlen L, Prachenko O, Soeken K, Zabora J, Wallen GR. Distress screening in allogenic hematopoietic stem cell (HCT caregivers and patients). Psycho-Oncology. 2011;20:615–22.
 - Siegel S. Psychosocial considerations in Hematopoietic stem cell transplantation: implications for patient quality of life and post-transplant survival. Commun Oncol. 2008;5:407–8.
 - Foster LW, McLellan LJ, Rybicki LA, et al. Allogenic BMT and patient eligibility based on psychosocial criteria: a survey of BMT professionals. Bone Marrow Transplant. 2006. 2006;44:223–8.
- Foster LW, McLellan LJ, Rybicki LA, et al. Utility of the psychosocial assessment of the candidates for the transplantation (PACT) scale in allogeneic BMT. Bone Marrow Transplant. 2009;44:375–80.
- 9. Hoodin FK. Factor analysis and validity of the transplant evaluation rating scale in a large bone marrow transplant sample. J Psychosom Res. 2003;54:465–73.
- Presberg BM, Levenson JL, Olbrisch ME, et al. Rating scales for the psychosocial evaluation of organ transplant candidates. Psychosomatics. 1995;36:458–61.
- Twillman RP, Manetto C, Wellisch DK, Wolcott DL. The transplant evaluation rating scale: a revision of the psychosocial levels system for evaluating organ transplant candidates. Psychom Theory. 1993;3(2):144–53.
- Prieto JM, Atala J, Blanch J, et al. Stem cell transplantation: risk factors for psychiatric morbidity. Eur Cancer Care. 2006;42:514–20.
- Prieto JM, Atala J, Blanch J, et al. Role of depression as a predictor of mortality among cancer patients after stem cell transplantation. J Clin Oncol. 2005;23:6063–71.
- 14. Richardson D, Huang Y, McGinty H, et al. A psychosocial risk predicts high readmission rates for hematopoetic cell transplant recipients. Bone Marrow Transplant. 2018;53:1418–27.
- Garcia CM, Mumby PB, Thiles S, et al. Comparison of early qulaity of life outcomes in autologous and allogenic transplant patients. Bone Marrow Transplant. 2012;47(12):1577–82.
- Goetzmann L, Klaghofer R, Wagner-Huber R, et al. Psychosocial vulnerability predicts psychosocial outcome after an organ transplant: results of a prospective study with lung, liver and bone marrow transplant. J Psychosom Res. 2007;62:93–100.
- Zomerdijk N, Turner J, Hill G. Adult-related haematopoietic stem cell donor experiences and the provision of information and psychosocial support: a systematic review of literature. Eu J Cancer Care. 2018;28(3):e12932. 1–15.
- 18. Cohen MP, Jenkins D, Holston EC, Carlson ED. Understanding health literacy in patients receiving hematopoietic stem cell transplantation. Oncol Nurs Forum. 2013;40:508–15.
- 19. Mosher CR, Redd WH, Rini CM, et al. Physical, psychological, and social sequelae following hematopoietic stem cell transplantation: a review of the literature. Psycho-Oncology. 2009;18:113–27.
- Cooke L, Gemmill R, Kravits K, et al. Psychosocial issues of stem cell transplant. Semin Oncol Nurs. 2009;25:139–50.
- Niederbacher ST, Tem C, Pinna A, et al. Patient's quality of life after allogenic haematopoietic stem cell transplantation: mixed-methods study. Eur Cancer Care. 2012;21:548–59.
- Hoodin HF, Harper FW, Posluszny DM. Chapter 35, psychological care of adult allogeneic transplant. In: Allogenic stem cell transplantation, contemporary hematology. New York: Springer Science + Business Media, LLC; 2010.
- Hill Q. Intensify, resuscitate or palliate: decision making in the critically ill patient with hematological malignancy. Blood Rev. 2010;24:17–25.
- McGrath P. Palliative care for patients with hematological malignancies-if not, why not? J Palliative Care. 1999;15:24–30.

- 25. McGrath P, Holewa H. Special considerations for haematology patients in relation to end of life care: Australian findings. Eur J Cancer Care. 2007;16:164–71.
- Cooke LG. Creating a palliative/educationaly session for HCT Patients at Relapse. Clin J Oncol Nurs. 2011;15:411–7.
- Ferris FD, Bruera E, Cherny N, et al. Palliative cancer care a decade later: accomplishments, the need, next steps From the American Society of Clinical Oncology. J Clin Oncol. 2009;27:3052–8.
- 28. Manitta VJ, Phillip JA, Cole-Sinclair MF. Palliative care and the hemato-oncological patient: can we live together? A review of the literature. J Palliative Med. 2010;13:1021–5.
- 29. Chung HL, Lyckholm LJ, Smith TJ. Review palliative care in BMT. Bone Marrow Transplant. 2009;43:265–73.
- 30. Howell D, Shellens R, Roman E, et al. Haematological malignancy: are patients appropriately referred for specialist palliative and hospice care? A systematic review and meta analysis of published data. Palliat Med. 2010;25:630–41.
- Epstein AG, Goldberg GR, Meier DE. Palliative care and hematologic oncology: the promise of collaboration. Blood Rev. 2012;26(6):233–9. https://doi.org/10.1016/j.blre.2012.07.001.
- Armoogum J, Richarson A, Armes J. A survey of the supportive care needs of informal caregivers of adult bone marrow transplant patients. Support Care Cancer. 2013;21:977–86.
- Cooke L, Grant M, Eldredge D, et al. Informal caregiving in HCT patients. Eur J Oncol Nurs. 2011;15:500–7.
- 34. Eldredge D, Nail L, Maziarz R, et al. Explaing family careiver role strain following autologous blood and marrow transplantation. J Psychosocial Oncol. 2006;24:353–74.
- Fife BL, Monahan PO, Abonour R, Wood LL, Stump TE. Adaptation of family caregivers during the acute phase of adult BMT. Bone Marrow Transplant. 2009;43:959–6.