TCTCN™ TEST CONTENT OUTLINE

Oncology Nursing Certification Corporation

I. Foundations of HSCT and Cellular Therapy – 22%

A. Basic concepts of HSCT and cellular therapy
   1. Hematopoietic cell lineage and function
   2. Immune system and function
   3. Histocompatibility (e.g., HLA typing)

B. Goals of therapy (e.g., graft-versus-tumor effect, hematologic/immune reconstitution, immunotherapy)

C. Indications for HSCT or cellular therapy (e.g., malignant, non-malignant, immune system disorders)

D. Types of HSCT and cellular therapy
   1. Autologous
   2. Allogeneic
      a. Matched related donors (MRDs)
      b. Matched unrelated donors (MUDs)
      c. Mismatched unrelated donors
      d. Umbilical cord
      e. Haploidentical
   3. Cellular therapy
      a. CarT
      b. TIL
      c. NK cells
      d. Bispecific antibodies
      e. Gene Therapy
      f. Donor lymphocyte infusion (DLI)

E. Sources of cells
   1. Peripheral blood
   2. Bone marrow
   3. Umbilical cord
   4. Tumor

F. Recipient suitability and evaluation

G. Recipient education

H. Caregiver education

I. Donor selection, care, and education

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II. HSCT and Cellular Therapy Process and Administration – 22%

A. Cellular therapy product collection and storage
B. HSCT product mobilization, collection, harvest, and storage
C. Conditioning / preparative regimens
    1. Intensity of therapy
    2. Chemotherapy
    3. Radiation therapy (e.g., TBI, fractionated)
    4. Biotherapy
    5. Immunotherapy
    6. Targeted therapies
D. Management of acute complications related to preparative regimens
E. Product administration
    1. Fresh vs. cryopreserved
    2. Infusion and injection management
    3. Hematologic compatibilities

III. Post-HSCT Management and Education - 22%

A. Early Post-HSCT Management and Education
    1. Immunosuppressive therapy
    2. aGVHD
    3. Infection prevention and management
    4. Sepsis
    5. Hematologic (e.g., engraftment, pancytopenia, transfusion support)
    6. Immune (e.g., engraftment syndrome, cytokine release syndrome, Hemophagocytic lymphohistiocytosis)
    7. Acute system specific complications (e.g., Sinusoidal obstructive syndrome, gastrointestinal)
    8. Graft rejection or failure
    9. Chimerism
    10. Symptom management for alterations in physiologic function (e.g., pain, nausea, vomiting, fatigue, nutrition support, mobility)

B. Late Post-HSCT Management and Education
   1. cGVHD (e.g., medical management, photopheresis)
   2. System-specific late effects (e.g., bronchiolitis obliterans syndrome, cataracts, infertility, cognitive deficits)
   3. Infection prevention and management (e.g., immunizations, antimicrobial prophylaxis)
   4. Disease relapse
   5. Subsequent malignancy
   6. Follow-up care and milestone visits

IV. Post-Cellular Therapy Management and Education – 22%

A. Early Post-Cellular Therapy Management and Education
   1. Infection prevention and management
   2. Sepsis
   3. Hematologic (e.g., pancytopenia, transfusion support)
   4. Immune (e.g., neurotoxicity, cytokine release syndrome, Hemophagocytic lymphohistiocytosis)
   5. Symptom management for alterations in physiologic function (e.g., pain, nausea, vomiting, fatigue, nutrition support, mobility)
   6. Treatment failure (e.g., disease progression, disease relapse)

B. Late Post-Cellular Therapy Management and Education
   1. System-specific late effects (e.g., neurotoxicity, pancytopenia, hypogammaglobulinemia)
   2. Infection prevention and management (e.g., immunizations, antimicrobial prophylaxis)
   3. Disease relapse
   4. Subsequent malignancy
   5. Follow-up care and milestone visits

V. Quality of Life – 8%

A. Navigation and coordination throughout the continuum
B. Psychosocial (e.g., coping, family, and caregiver support)
C. Health promotion and maintenance
D. Sexuality
E. Cultural and spiritual competence
F. Survivorship
G. Palliative care
H. End-of-life care (e.g., hospice, legacy building)

VI. Professional Performance – 4%

A. HSCT and cellular therapy standards of professional performance:
   1. Nursing scope of practice
   2. Evidence-based practice, research, and quality improvement
   3. Communication and interprofessional collaboration
   4. Professional development
   5. Environmental health and safety (e.g., personal protective equipment, safe handling)

B. Ethical and legal considerations (e.g., informed consent, advance directives, professional boundaries, patient, and donor advocacy)

C. Accreditation (e.g., FACT, The Joint Commission, REMS)

D. Self-care