

HEALTH SERVICES POLICY & PROCEDURE MANUAL

North Carolina Department Of Correction
Division Of Prisons

SECTION: Clinical Practice Guidelines

POLICY # CP-5

PAGE 1 of 6

SUBJECT: Transplants

EFFECTIVE DATE: June 2004

SUPERCEDES DATE: None

PURPOSE

To establish basic understanding of indications and contraindications for transplantation of various organs.

POLICY

The N.C. Department of Correction, Division of Prisons, Health Services Section recognizes that organ transplantation may become necessary in an inmate with certain disease entities.

PROCEDURE

Bone Marrow Transplantation

Indications for bone marrow transplantation:

1. Malignancy: Acute lymphoblastic leukemia, acute myelogenous leukemia, chronic myelogenous leukemia, chronic lymphoid leukemia, myelodysplasia, Hodgkin's disease, Non-Hodgkin's disease, multiple myeloma, breast cancer, lung cancer, ovarian cancer and testicular cancer
2. Immunodeficiency: Severe combined immunodeficiency, Wiscott-Aldrich Syndrome, adenosine deaminase deficiency, x-linked lymphoproliferative syndrome, and cartilage-hair hypoplasia
3. Defective hematopoiesis: Aplastic anemia, Fanconi's anemia, sickle cell disease, thalassemia, granulocyte disorders, Kostmann's Syndrome, chronic granulomatous disease, platelet disorders, osteoporosis, metabolic storage diseases, and congenital hemophagocytic syndrome

Contraindications to transplantation:

1. HIV positive
2. Systemic infection
3. Autoimmune disorders
4. Malignancy (concurrent and in addition to those listed above)

Cornea Transplantation

Indications for cornea transplantation:

1. Injury to the cornea with chronic scarring
2. Infection with chronic scarring
3. Hereditary corneal failure
4. Corneal failure after surgery such as cataract surgery
5. Rejection of the first implant

HEALTH SERVICES POLICY & PROCEDURE MANUAL

North Carolina Department Of Correction
Division Of Prisons

SECTION: Clinical Practice Guidelines

POLICY # CP-5

PAGE 2 of 6

SUBJECT: Transplants

EFFECTIVE DATE: June 2004

SUPERCEDES DATE: None

Contraindications to transplantation:

1. Donor death from unknown causes
2. Creutzfeldt-Jakob disease in the donor
3. Donor is HIV positive or high risk for HIV
4. Donor is affected with progressive multifocal leukoencephalitis, sub acute sclerosing panencephalitis, active encephalitis
5. Donor has congenital rubella, active septicemia, active syphilis, viral hepatitis or seropositive, and rabies
6. Donor has leukemia, active disseminated lymphoma, and intraocular malignancy

Heart Transplantation

Indications for heart transplantation:

1. End stage heart failure (class II with uncontrollable ventricular arrhythmia, class III heart failure despite medical treatment and class IV heart failure with symptoms at rest despite optimal therapy)
2. Ischemic coronary disease
3. Idiopathic dilated cardiomyopathy
4. Valvular heart disease when the risk of cardiac surgery otherwise is extremely high
5. Congenital heart disease (not treatable with surgical correction)
6. Sarcoidosis limited to the heart

Absolute contraindications to transplantation:

1. Active infection systemically
2. Organ failure other than the heart
3. HIV positive/AIDS
4. Active substance abuse
5. Malignancy
6. Inability to comply with the medical regimen.

Relative contraindications to transplantation:

1. Recent pulmonary infarction
2. Recent pulmonary infection
3. Insulin dependent diabetes mellitus
4. Elevated pulmonary vascular resistance

HEALTH SERVICES POLICY & PROCEDURE MANUAL

North Carolina Department Of Correction
Division Of Prisons

SECTION: Clinical Practice Guidelines

POLICY # CP-5

PAGE 3 of 6

SUBJECT: Transplants

EFFECTIVE DATE: June 2004

SUPERCEDES DATE: None

5. Age greater than 60 years old

Kidney Transplantation

Indications for kidney transplant

1. End stage renal disease due to diabetes, hypertension, glomerulonephritis (except focal glomerulosclerosis)

Absolute Contraindications to transplant:

1. Advanced coronary artery disease (class III and IV)
2. HIV positive, active systemic infection
3. Advanced chronic obstructive pulmonary disease
4. Malignancy (except skin cancers)
 - a) If no sign of recurrent disease two years after initial treatment, may be considered
5. Substance abuse especially intravenous drugs
 - a) Should be drug free for one year with documented compliance in a rehabilitation program
6. Current positive T-cell cross match

Relative Contraindications to transplant

1. Active vasculitis, glomerulonephritis, SLE (systemic lupus enthematosis), Wagener's granulomatosis, Good pasture's disease
2. Positive Hepatitis B antigen
3. Active systemic infection or disease process
4. Marked obesity,
 - a. patients, who are obese, 30% above ideal body weight, will be encouraged to lose weight.
 - b. Patients morbidly obese, 50% above ideal body weight, will be deferred for transplant until a successful weight loss program is instituted
5. Severe advanced sclerotic vascular disease
6. Oxalosis
7. Inability to comply with the medical regimen
 - a. No social support network
 - b. Mental incompetence

Liver Transplantation

Indications for liver transplantation:

1. Non-alcoholic cirrhosis: primary biliary cirrhosis, secondary biliary cirrhosis, cryptogenic cirrhosis, chronic autoimmune hepatitis with cirrhosis, primary sclerosing cholangitis

HEALTH SERVICES POLICY & PROCEDURE MANUAL

North Carolina Department Of Correction
Division Of Prisons

SECTION: Clinical Practice Guidelines

POLICY # CP-5

PAGE 4 of 6

SUBJECT: Transplants

EFFECTIVE DATE: June 2004

SUPERCEDES DATE: None

2. Metabolic disorders; alpha 1 – antitrypsin deficiency, Wilson’s disease, hemochromatosis, galactosemia, tyrosinemia, glycogen storage diseases.
3. Congenital hepatobiliary disorders: biliary atresia, congenital hepatic fibrosis.
4. Nonmetastatic primary hepatobiliary tumors: hepatocellular carcinoma, angiosarcoma, epithelioid hemangioendothelioma, multiple or massive hepatic adenoma. (These patients should undergo thorough evaluation to determine the possibility of metastases which affect his/her transplant recipient status)
5. Vascular disorders: hepatic vein thrombosis.
6. Alcoholic cirrhosis: patients with alcoholic cirrhosis can be considered if he/she meet the criteria of abstinence for one year. Proper documentation of compliance with a rehabilitation program must be available.
7. Viral hepatitis: postnecrotic cirrhosis following infection with Hepatitis B or C.
8. Fulminant hepatitis: resulting from viral, toxin, anesthetic induced, and medication induced liver injury.

Absolute contraindications to transplantation:

1. Myocardial infarction within the recent 6 month period
2. Advanced cardiac disease
3. Systemic infection
4. Severe chronic obstructive pulmonary disease
5. Extrahepatic malignancy
6. Cholangiosarcoma
7. Active substance abuse
8. Co-existing life threatening extrahepatic disease
9. HIV positive/AIDS
10. Inability to comply with the medical regimen due to psychiatric disorder or social issues
11. Thrombosis of mesenteric venous system
12. Multiple previous liver transplants

Relative contraindications to transplantation:

1. Age greater than 70 years old.
2. Delta hepatitis, HBe Ag positive in patients with Hepatitis B or HBs Ag positive
3. Portal vein thrombosis
4. Acute or chronic renal failure not associated with liver disease
5. Intrahepatic or biliary sepsis
6. Severe hypoxemia resulting from right to left shunts

HEALTH SERVICES POLICY & PROCEDURE MANUAL

North Carolina Department Of Correction
Division Of Prisons

SECTION: Clinical Practice Guidelines

POLICY # CP-5

PAGE 5 of 6

SUBJECT: Transplants

EFFECTIVE DATE: June 2004

SUPERCEDES DATE: None

7. History of extensive hepatobiliary or stomach surgery
8. Severe multisystem failure

Lung Transplantation

Indications for lung transplantation

1. Emphysema
2. Idiopathic pulmonary fibrosis
3. Alpha 1 – antitrypsin deficiency
4. Pulmonary hypertension
5. Cystic fibrosis

Absolute contraindications to transplantation:

1. Major organ dysfunction other than the lung(s)
2. Recent active malignancy
3. HIV/AIDS
4. Hepatitis B antigen positive
5. Hepatitis C with evidence of active liver disease
6. Current substance abuse
7. Severe musculoskeletal disease affecting the thorax

Relative contraindications to transplantation:

1. Poor nutrition (either <70% of ideal body weight or >130% of ideal body weight)
2. Symptomatic osteoporosis
3. Systemic infection
4. Requirement for invasive ventilation
5. Psychosocial issues likely to adversely affect one's health
6. High dose steroid use

Pancreas Transplantation

Indications for pancreas transplantation:

1. Patients with insulin dependent diabetes mellitus with renal failure
2. Patients with insulin dependent diabetes mellitus who experience:
 - a. frequent life threatening fluctuations of their blood glucose levels precipitating frequent hospitalization or ER visits,
 - b. difficulty regulating their glucose levels over an extended period of time, and
 - c. clinical and emotional problems with insulin therapy to the point of incapacitation

HEALTH SERVICES POLICY & PROCEDURE MANUAL

North Carolina Department Of Correction
Division Of Prisons

SECTION: Clinical Practice Guidelines

POLICY # CP-5

PAGE 6 of 6

SUBJECT: Transplants

EFFECTIVE DATE: June 2004

SUPERCEDES DATE: None

Contraindications to transplantation:

1. Patient does not have adequate cardiac reserve
2. Severe, uncorrectable coronary artery disease
3. Psychiatric illness
4. Inability to comply with the medical regimen
5. Systemic infection
6. Cancer of other organs within 5 years of transplantation, excluding non-melanomatous skin cancers
7. HIV positive/AIDS
8. Substance abuse



6/18/04

Paula Y. Smith, MD, Director of Health Services

Date

SOR: Deputy Medical Director