

Lucile Packard Children's Hospital
DEPARTMENT OF PATIENT CARE SERVICES

**PATIENT CARE GUIDELINE:
Management of the Patient Following Heart Transplantation**

This guideline is intended to provide the nurse with a description of recommended courses of action to address a specific diagnosis/clinical condition or need of a particular patient population. It is not necessarily the only acceptable and appropriate approach to patient care. Patient care continues to require individualization based on patient needs and responses.

Overview:

Caring for a pediatric patient following heart transplantation requires the nurse to have a strong understanding of the function of the cardiac, pulmonary and renal systems as well as knowledge of immunosuppressive agents. Heart and renal failure, infection and rejection are all possible conditions in a patient following heart transplantation.

The bedside nurse must use proper assessment tools in caring for the pediatric patient following heart transplantation. He/she must make interventions that are appropriate, as these patients are extremely fragile.

Key Assessments:

Respiratory:

- Increased respiratory effort
- Retractions

Cardiovascular:

- Hypotension
- Hypertension
- Arrhythmia

Gastrointestinal:

- Decreased calorie intake
- Decreased PO intake

Immunology:

- Fever
- Sepsis
- Impaired heart function
- Invasive catheters
- Malnutrition
- Inadequate immunosuppression levels

Interdisciplinary Treatment Goals:

1. Protect airway to prevent any respiratory complications.
2. Assess nutritional status with nutritionist or dietician.
3. Family teaching in regards to heart disease, signs and symptoms of heart rejection/infection and discharge teaching. Family should be able to function independently in the child's care.
4. Ensure case management/transplant coordinator is involved in patient care discharge.

Common Problems:

1. Alteration in respiratory function related to sternotomy, decreased neurologic function and pain.

Nursing Orders and Interventions:

1. Monitor respiratory rate and effort
2. Pulse oximetry
3. Arterial blood gases
4. Assess breath sounds
5. Monitor for retractions

2. Potential alteration in cardiovascular function related to decreased heart function, hypoalbuminemia,	<ol style="list-style-type: none"> 1. Monitor and chart tube drainage 2. Monitor VS, CVP and peripheral perfusion 3. Assess for signs and symptoms of infection/rejection 4. Follow Nursing Standards of Care
3. Alteration in level of consciousness related to low cardiac output.	<ol style="list-style-type: none"> 1. Assess ability to follow commands 2. Assess for spontaneous movements 3. Assess pupil size 4. Assess cranial nerve function 5. Assess ability to recognize parents 6. Oriented times three 7. Follow Nursing Standards of Care
4. Alteration in gastrointestinal function related to decreased calorie intake and possible pre-existing cardiac cachexia.	<ol style="list-style-type: none"> 1. Monitor total daily fluid intake, serum albumin, calorie intake 2. Consult nutritionist 3. Encourage caloric intake 4. Follow Nursing Standards of Care
5. Potential for infection related to use of immunosuppression, and invasive catheters.	<ol style="list-style-type: none"> 1. Good hand washing prior to any contact with patient 2. Ensure sterile technique when necessary 3. Change dressings and IV tubing per protocol 4. Monitor for s/s of infection (fever, inflammation, leucopenia, leukocytosis) 5. Follow Nursing Standards of Care 6. Meticulous nursing management of immunosuppressive agents and laboratory draws related to immunosuppressive agents

Complications/Contact MD:

Change in vital signs such as decreased/ increased heart rate, hypotension, hypertension, temperature.
 Poor PO intake, vomiting, nausea, or diarrhea
 Increase in chest tube drainage and shortness of breath.

Teaching Content:

Provide specific patient instructions related to the following and document on the plan of care IN IPOC OR Progress Note.

Symptom Management/ Risk Factors:

1. Medications:

Patient Education related to immunosuppression, antifungal/antibiotic regimens.

2. Procedures/Equipment:

Family may require education related to IV Pumps, PICC for CMV prophylaxis treatment.

3. Nutrition:

Ensure family understands home care for child's nutrition.

4. Activity: as tolerated

Related Data/Resources:

Written By: **Molly Kuzman, RN, MSN**

Reviewed By: Sandy Staveski RN, MS, CCRN; Jodette Cabatic RN, MS; Stephen Roth, MD

Approved By:

Original Date: _12/2003

_____ . doc

temp-ins.doc

S:\nurspub\guides