

# **Midwest Pediatric Cardiology Nurses Association**

*Winter/Spring Newsletter 2006*

*Volume 1*

Welcome to the first issue of the

## **Midwest Pediatric Cardiology Nurses Association Newsletter.**

### Table of Contents

Board of Directors	Page 1
Letter from the President of MPCNA	Page 2
Logo Contest	Page 2
List of Committees	Page 3
Upcoming Conferences	Page 4
Rhythm of the Newsletter	Page 5
Diagram of the Newsletter	Page 6
Articles	Page 7 and 8
MPCNA Member registration form	Page 9
Rhythm of the newsletter answers	Page 9

### **MPCNA Board of Directors**

Elections were held at the first MPCNA meeting in November 2005. The following individuals were elected to the Board of Directors

President	Tammy Bowman	Saint Louis Childrens Hospital
President Elect	Heidi Fields	Saint Louis Childrens Hospital
Secretary	Patricia Rhee	Cardinal Glennon Childrens Hospital
Treasurer	Colleen Murphy	Saint Louis Childrens Hospital
Program Chairperson	Kathleen Jay	Saint Louis Childrens Hospital
Program Co-Chairperson	Julie Osborne	Saint Louis Childrens Hospital

**Midwest Pediatric Cardiology Nurses Association Newsletter  
Volume 1**

***President's Letter***

I am very pleased to introduce the first volume of the Midwest Pediatric Cardiology Nurses Association (MPCNA) newsletter. I hope everyone had joyous holidays and a peaceful start to the New Year.

It has been both a challenge and an exciting learning experience being involved in creating a new chapter of the Northeast Pediatric Cardiology Nurses Association. Our board of directors met on January 10 to discuss future educational plans, desired newsletter highlights, the creation of a website, and our financial status. I am happy to report we have 79 **members** thus far. We have had responses from nurses in Illinois, Missouri, Wisconsin, Michigan, Minnesota, Kentucky, Arkansas, Texas, Nebraska, and Ohio. I believe this is a testament to the dedication of pediatric cardiology nurses, our desire to enhance our education, and to improve delivery of care to our patient population.

Hopefully you have received notice of our next educational offering. It will be held Tuesday, February 28, at Cardinal Glennon Children's Medical Center from 5pm to 7pm. The first hour will be devoted to networking, dinner, and a short business meeting. Our speaker for the latter portion of the evening is Dr. Andrew Fiore. The topic will be "The Sano Shunt for Hypoplastic Left Heart Syndrome". This lecture has been approved for 1.2 contact hours. I look forward to seeing all of you there.

I would like to invite the artistic among you to help us create a logo for our organization. We envision a simple logo to represent our organization and our mission to improve our care of pediatric cardiac patients. Please submit your drawings to any board member. My goal is to have members choose the winning logo at our April educational gathering, which we are planning for the end of that month. The winner will be granted a 1 year free membership to the Midwest Pediatric Cardiology Nurses Association.

In other housekeeping news, our web site is currently under construction. We hope to have it up in the next 4-6 weeks. Some of our anticipated highlights for future newsletters include a "rhythm strip of the month", CHD diagram, conference listings, a short educational article, nursing care pearls, reference lists, and any related items YOU would like to contribute. I would like this to be an organization everyone feels free to become involved in and make suggestions for improvement and growth.

Hope to see you all on the 28th at Cardinal Glennon.

Tammy Bowman  
MPCNA President

**Logo Contest**

We are interested in adapting a logo that is unique to MPCNA. This logo will be used on our letterhead, web site and newsletter. The price will be a years free membership to MPCNA. Anyone interested should submit their logo to Tammy Bowman at [tammymg@bjc.org](mailto:tammymg@bjc.org)

## **MPCNA Committees**

The following is a list of MPCNA Committees and the members that have volunteered to participate in these committees. If anyone else is interested in participating please email Kathleen Jay at [ksj5756@bjc.org](mailto:ksj5756@bjc.org).

### **Newsletter Committee**

Responsibilities include finding articles to be published in future newsletters. Newsletters will be published twice a year. The goal is to include articles from nurses that address topics in pediatric cardiology

**Traci Boschert**

**Kathleen Jay**

**Kelly Murawski**

### **Program Committee**

Responsible for organizing MPCNA Conferences. Responsibilities include recruiting guest speakers and finding appropriate facilities to hold meetings.

**Stephanie Fitter**

**Kathleen Jay**

**Julie Osborne**

**Mary Kwentus**

**Heidi Fields**

### **Research Committee**

Sharing nursing research from your institution to be published in the MPCNA Newsletter.

**Barbara Anderman**

**Angela Burks**

### **Hospital Liason and Public Relations**

Serve as MPCNA representative for your institution and assist in promoting and advertising MPCNA events.

**Stephanie Fitter**

**Kathleen Hurley**

**Molly King**

**Julie Osborne**

### **Membership**

Maintain the MPCNA database of members and recruit staff from your institution to join MPCNA and become active members.

**Kasey Kochinski**

**Mary Kwentus**

**Donna Marshall**

**Kelly Murawski**

**Patricia Rhee**

**The Northeast Pediatric Cardiology Nurses Association**

Fall Conference October 2006

New York City

Tentative Guest Speakers

Dr. Richard Jonas	Children's National Medical Center Washington D.C.
Dr. William Hillibrand	Children's Hospital at Columbia Presbyterian New York City
Jan Costello	Beth Israel Hospital Newark, New Jersey
Dot Beke RN	Boston Children's Hospital
Lisa Naclerio RN	Boston Children's Hospital
Kathy Harney RN	Boston Children's Hospital

Please check NPCNA.org for more information

**Midwest Pediatric Cardiology Society**

Annual Meeting

October 2006

More information to follow in summer newsletter

Please refer to Web site for more information [mwpcsociety.org](http://mwpcsociety.org)

**Upcoming Local Conferences**

February 28, 2006

Dr. Andrew Fiore Cardinal Glennon Childrens Hospital

The Sano Shunt for Hypoplastic Left Heart Syndrome

Cardinal Glennon Childrens Hospital

5-7pm

RSVP [pmjrn1068@aol.com](mailto:pmjrn1068@aol.com)

April 2006

Dr. David Balzer Saint Louis Childrens Hospital

Date to be determined

Topic : Interventional Catheterization

More information will be sent by email.

**2006 Perspectives in Pediatric Transplantation**

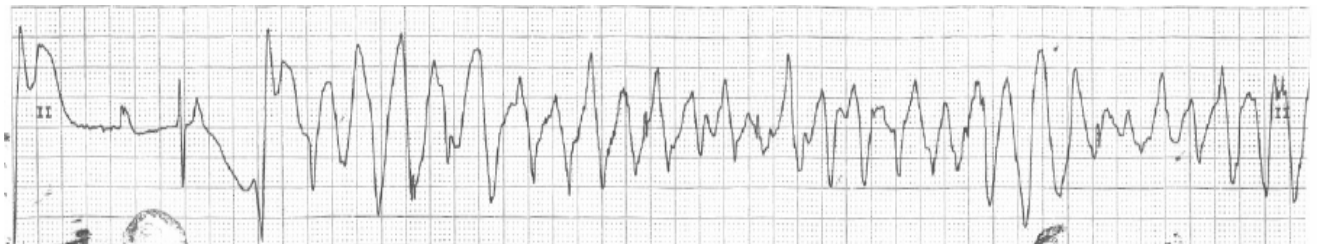
Date: September 28th and 29th  
Eric P Newman Education Center  
Washington University  
Saint Louis Missouri

Conference will address issues with solid organ transplants. Topics to be discussed include the Berlin Heart as a bridge to transplantation, community acquired infections in the transplant population, plasmapheresis and hyperlipidemia.

Please contact Carol Branch, the committee chair for further information: email: [branch\\_c@kids.wustl.edu](mailto:branch_c@kids.wustl.edu)

## Rhythm of the Newsletter

Patient was a 5 year old diagnosed as a newborn with congenital complete heart block. Epicardial VVI pacemaker placed in infancy and then patient lost to follow-up for 5 years. Presented to pediatrician for immunizations at the age of 5 years and bradycardia was noted on exam. Patient was admitted to the hospital for presumed pacemaker failure. It was suspected that her battery had reached EOL (end of life) and she most likely needed a new generator. Shortly after admission to the floor the following 3 strips represent the rhythm that developed. They are in order of occurrence. Answers to the questions are on page 9.



### Questions:

Describe the rhythm seen on the first strip.

Is there any pacemaker activity noted?

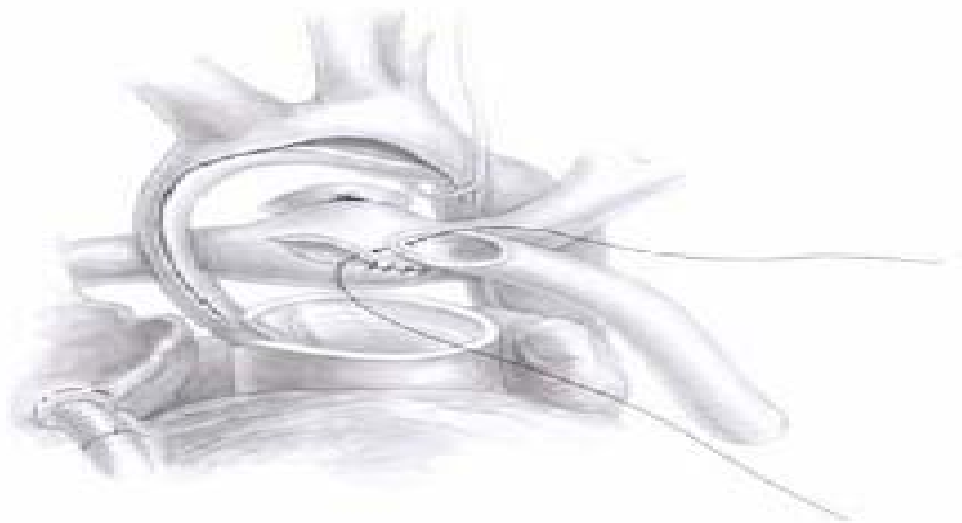
How is the rhythm different, if at all in the second strip?

Strip 3 represents the progression from strip 1. What is this rhythm?

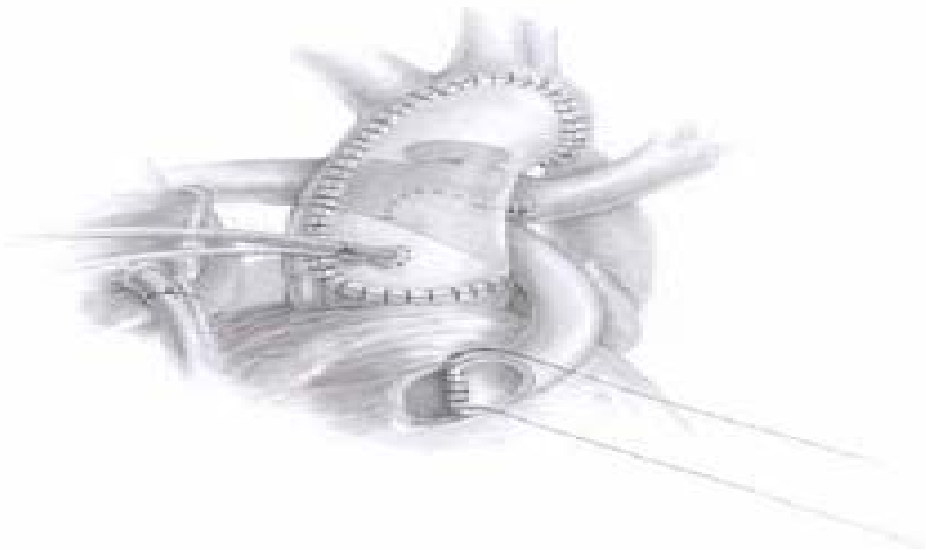
What nursing interventions are necessary at this point?

Answers and discussion on page 8.

**Featured Diagram**  
**The Sano Shunt**



*The Sano shunt modification of the Norwood procedure incorporates a Gortex tube that is connected between the lung arteries and a short incision in the right ventricle*



## **Presensitized Pediatric Heart Transplant Recipients**

Submitted by Kathleen Hurley, RN, MSN, CPNP and Traci Boschert, RN

A heart transplant evaluation involves numerous diagnostic studies and procedures as well as an extensive list of blood tests. An essential part of every heart transplant evaluation is a blood test that measures a patient's panel reactive antibodies. The results of this test are required prior to listing a patient for a heart transplant. Panel reactive antibody (PRA) is measured as a percentage reactive to a panel of representative human leukocyte antigens (HLA) in the general population. The test identifies the presence of pre-formed antibodies that the patient may have to donor HLA types, and reflects a probability of having antibodies directed against a percent of the general population. Patients with a PRA >20% are considered presensitized and at increased risk for rejection following transplantation. Many pediatric heart transplant centers will not transplant presensitized patients unless they have a negative prospective donor crossmatch. This can severely limit the ability to find a suitable donor. Our institution does not require that a presensitized patient have a negative prospective donor crossmatch. Instead, we use a heightened immunosuppression protocol aimed at decreasing the risk of rejection in this patient population.

At the International Society for Heart and Lung Transplantation (ISHLT) 25th Anniversary Meeting, Dr. Holt from St. Louis Children's Hospital presented data from our heart transplant program on presensitized patients and the immunosuppression protocol employed in this patient population. A perioperative plasmapheresis, post-transplant plasmapheresis, polyclonal antilymphocyte globulin, and cytoxin immunosuppression protocol was employed in 11 patients with a positive crossmatch to their allografts. Rejection frequency, severity and time course were reviewed in these patients. Median follow-up was 3.25 years.

All patients had at least one rejection episode, and 10 of the eleven first episodes occurred less than 4 weeks after transplant. Four of the ten rejection episodes were associated with heart failure, and three of these had rebound rejection episodes between 3-6 weeks after the initial rejection episode. Late onset rejection, or rejection greater than 6 months post-transplant, only occurred in 3 patients, and noncompliance was documented in one of the cases. Survival for the group at one year was 91% and 79% at 3 years with one death from rejection. One can infer from our data that rejection in these patients will occur very early after transplant with severe symptomatology, but can be successfully treated without an increased risk for late rejection. The results of this study continue to direct the way in which we manage these complicated patients. As our experience continues to grow, we will refine our protocol in order to reduce the risk and severity of initial rejection episodes and avoid rebound episodes.

## **Pulmonary Hypertension**

Submitted by Pegi Shaner, RN, MSN, CPNP

“The 6th Annual Pulmonary Hypertension Symposium” was held in the Fall of 2005 in Baltimore, Maryland. The keynote speaker was Congressman Tom Lantes (CA-12) whose granddaughter was struck with pulmonary hypertension (PH) several years ago at the age of eighteen. His passionate pleas for government funding to help understand and conquer this disease were apparent as he talked about introducing the PH Research Act to congress in June 2005. He hopes this act will fund groundbreaking medical research dedicated to finding treatments and possibly a cure for PH.

The PH Research Act will help convert hope into something more concrete. The legislation authorized 250 million dollars over five years to fund PH research and fulfill three key objectives. First, it expands PH research at the National Heart, Lung, Blood Institute (NHLBI). Second, it establishes research and education efforts for both health professionals and the general public. Third, it establishes a data system and clearinghouse at the NHLBI.

In addition to this wonderful news, there are also several new drugs and therapies becoming available to patients with PH. Added to the traditional therapies of oxygen, anticoagulants, calcium channel blockers and prostacycline, patients now have the opportunity to try other prostanoids such as Treprostinil (Remodulin) which can be delivered through a central line similar to Prostacycline or given subcutaneously. Another prostanoid is Iloprost; also known as Ventavis, which is the inhaled medication for PH. Another class of medications is the Endothelin Antagonists which Bosentan (Tracleer) can be given as a pill. Sildenafil, also known as Viagra or Ravatio, is a Phosphodiesterase inhibitor that can be given orally. At St. Louis Children’s Hospital, we utilize all the above therapies to help our patients control their pulmonary hypertension.

The impact of all the new therapies is encouraging to patients and their families as well as to medical professionals who treat them. The new drugs and therapies prevent lung and heart/lung transplantation from occurring for many years!

From the Editors

Please send us any comments or feedback regarding your thoughts on our first newsletter. Any input will be greatly appreciated.

Traci Boschert [boschert\\_t@kids.wustl.edu](mailto:boschert_t@kids.wustl.edu) and Kathleen Jay [ksj5756@bjc.org](mailto:ksj5756@bjc.org)

## MPCNA Application

If you would like to receive the newsletter and conference information please fill out the application below and return by email to Patricia Rhee at [pmjrn1068@aol.com](mailto:pmjrn1068@aol.com).

- Midwest Pediatric Cardiac Nurses Association
- Membership Application
  
- Name: \_\_\_\_\_  
(Last / first)
- Degree(s) / Certification(s): \_\_\_\_\_
- Position: \_\_\_\_\_
- Hospital: \_\_\_\_\_
- Work mailing address: \_\_\_\_\_  
Street Address  
\_\_\_\_\_  
City / State / Zip
- Work Phone: \_\_\_\_\_
- Email: \_\_\_\_\_
- Areas of interest: \_\_\_\_\_
- I am interested in the following:
  - Attending meetings
  - Attending conferences
  - Attending meetings / conferences via webex (when available)
  - Participation in Committees
    - Membership / Annual Directory
    - Newsletter
    - Conference Planning
    - Research

### **Rhythm of the Newsletter answers.**

Strip one shows nonconducted P waves, occasional V pacing spikes that do not capture and the occasional junctional escape beat. In strip two there are V spikes visible again that do not capture the ventricle but only one junctional escape beat. Strip three shows that the rhythm has now progressed to polymorphic ventricular tachycardia. This is of course a critical situation. Nursing interventions should immediately include assessing perfusion and initiating PALS protocol. It is important to note that these strips represented a non-perfusing rhythm. The rhythm in strip two should have prompted the application of external pacing pads. Strip three is when defibrillation would be necessary. This case emphasizes the importance of follow-up care and the reality that some children may be completely dependent on their pacemaker. In this situation the child recovered and returned to a narrow complex perfusing rhythm after one dose of epinephrine.