

HIGHLIGHTED: THROMBOCYTOPENIA

PLUS: POCKET NOTEBOOK • EDUCATIONAL OFFERINGS • BRING IT ON LETTER FROM THE PRESIDENT • BRAG BOARD • AWARD RECIPIENTS

The Publication of the Florida Association of Neonatal Nurse Practitioners

The Wrap-up: FANNP's 23rd National Neonatal Nurse Practitioner Symposium Clinical Update and Review

I want to thank everyone who attended the 23rd National Clinical Update and Review for assisting in making it another GREAT conference! Also, I'd like to extend a BIG thank you to the Planning Committee; without them the conference couldn't have come together so seamlessly. Everyone seemed to have a wonderful time meeting old and new friends, learning and relaxing in a beautiful location. All of our speakers and exhibitors had very positive comments regarding the conference.

The Planning Committee is taking a brief hiatus before we begin working on next year's conference. We have many new ideas in addition to continuing our proven process. Please feel free to send us any suggestions or ideas for next year's event! Best wishes to those of you who will be taking your credentialing exam soon. And do let us know of your progress, as we would love to brag about you in the newsletter!

We will also be keeping you informed of the progress of next year's conference planning in the newsletters, so stay tuned! See you next year!

Mary Kraus, MSN, NNP-BC Conference Planning Chair





Save the date! FANNP's 24th Neonatal Nurse Practitioners
Symposium: Clinical Update and Review

October 15-19, 2013

Sheraton Sand Key Resort, Clearwater Beach, Florida

Letter from the President

Our 23rd FANNP Annual Symposium was a monumental success! I'd like to extend a HUGE word of thanks to Mary Kraus and her planning committee for all the long hours and hard work on this year's conference!! Most of all, I'd like to



say *THANK YOU* to all of our loyal attendees; without each of you, this conference would not be possible. To witness the smiling faces and hear the positive feedback is an enormous reward for the FANNP conference planners. Be sure to mark your calendars for the 2013 conference next October 15th through 19th, at the Sheraton Resort in Sand Key, FL. Each year, the confer-

ence gets better and better, so you do NOT want to miss it!

Once again, another year is coming to an end and a new one awaits us. On behalf of the FANNP Board of Directors, I would like to wish everyone a very happy holiday season with your loved ones! For each of you, I also hope that the New Year brings the rewards that you undeniably deserve, wonderful opportunities, and prosperity.

The future for FANNP is very bright and offers many opportunities for advancement, scholarship and networking. Please visit our website often and join our Facebook page for current updates and interesting posts. And please feel welcome to post something on our Facebook page! We love hearing from you with regard to the activities and accomplishments of your unit, as well as your personal achievements and activities! Member involvement is the key to organizational success.

I'm looking forward to another great year for FANNP! Happy Holidays and I hope everyone finds himself or herself on Santa's "nice" list ©.

Terri Marin, PhD, NNP-BC President, FANNP

Congratulations!

2012 FANNP President's Award Recipient —Sheryl Montrowl

A new award was unveiled at this year's FANNP Annual Symposium, presented during the FANNP Annual Brunch. The President's Award was instituted to formally recognize the hard work, diligence and willingness of an FANNP member who takes an active role in maintaining, enhancing and fostering the daily operations of the organization while upholding and promoting the mission and philosophy of FANNP. The criteria for this award are outlined in the acronym: **P.R.A.I.S.E.**

- P: Professionalism
- R: Responsible
- A: Accountable
- I: Innovative
- S: Supportive
- E: Exceptional Effort

The recipient of the 2012 FANNP President's Award is our FANNP Treasurer, Sheryl Montrowl.

Sheryl consistently excels and embodies the *PRAISE* qualities of the President's Award. She conducts her FANNP responsibilities in a prompt, professional, succinct manner, while frequently volunteering for tasks beyond her defined role, and completing them with an obvious positive attitude. Sheryl's dedication, commitment and extraordinary efforts promote FANNP's growth and sustainability, as well as ensure the viability and success of our organization. Without her adept responsibility to our financial stability, our longevity would be vulnerable. Undeniably, Sheryl is well-deserving of this notable honor and highly worthy of *PRAISE*. Please join me in congratulating Sheryl Montrowl for a *JOB WELL DONE*!

THE FLORIDA ASSOCIATION OF NEONATAL NURSE PRACTITIONERS

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Thrombocytopenia

Dinorah Rodriguez-Warren, NNP-BC

Thrombocytopenia disorders are most often caused by immune mediated thrombocytopenia, infections and dissimenated intravascular coagulopathy. Thrombocytopenia that presents in the first seventy-two hours of life is typically secondary to placental insufficiency and reduced platelet production (Roberts & Murray, 2003). Antibodies, mechanical problems, or intravascular coagulation can cause consumptive thrombocytopenia. Consumptive thrombocytopenia is the most common type of thrombocytopenia seen in the neonatal intensive care unit (Cloherty, 2008). The most severe sequelae associated with thrombocytopenia are intracranial hemorrhage (Cloherty, 2008).

In neonatal alloimmune thrombocytopenia, the infant's platelets express an antigen that is not present on the maternal platelets. The infant presents with a low platelet count, petechia, and mucousal bleeding during the first forty-eight hours of life, or with an intracranial hemorrhage (Gyamfi & Eddeman, (2005). Alloimmune thrombocytopenia (AIT) is a condition in which maternal antibodies are formed to surface antigens of fetal platelets that have entered the maternal circulation. The maternal immune system recognizes these antigens as foreign and an Immunoglobulin G (IgG) response occurs. The maternal IgG crosses the placenta and binds to fetal platelets by recognizing the antigen to the glycoprotein on the fetal platelet surface (Gyamfi & Eddleman, 2005). In addition to platelet specific antigens, human platelets also have class 1 human leukocyte antigens (HLA-1) on their surface. The HLA-1 is identified in the mother to determine if the thrombocytopenia is alloimmune in nature. This antigen-antibody complex is then removed by the fetal reticuloendothelial system, causing fetal thrombocytopenia, which can lead to sequelae that range from petechiae to intracranial hemorrhage and sometimes death (Roberts & Murray, 2002). The definition for thrombocytopenia for AIT is a fetal/ neonatal platelet count of less than 150,000/liter resulting from transplacentally acquired maternal platelets' alloantibodies.

Management of AIT has two categories: medical and surgical. The medical management of AIT involves the use of intravenous immunoglobulin and/or steroids (Gyamfi & Eddelman, 2005). Compatible platelets from the mother are utilized for transfusion. The surgical method for management involves serial inutero fetal platelet transfusions. The goal of these interventions is to prevent antenatal or perinatal intracranial hemorrhage.

Thrombocytopenia caused by decreased platelet production is associated with other congenital abnormalities such as radial aplasia or pancytopenia, as is Fanconi's hypoplastic anemia. Hereditary thrombocytopenia such as Wiskott-Aldrich syndrome is sex-linked and associated with eczema and frequent infections.

Late onset thrombocytopenia occurs after 72 hour of life and is associated with late onset sepsis or necrotizing enterocolitis (Roberts & Murray, 2003). The thrombocytopenic nadir

typically occurs between 24 to 48 hours of onset and can be severe, requiring platelet transfusion until sepsis or necrotizing enterocolitis is controlled. Once controlled, the recovery for platelet reproduction is slow and can take up to five days.

The management for thrombocytopenia is transfusion with the non-immunologically-mediated platelets. The following guidelines assist with the decisions to transfuse platelets:

Plt count <30K

consider transfusion in all patients

Plt count 30-49K

do not transfuse if clinically stable.

Consider transfusion if

- <1000grams and <1week of age
- · clinically unstable
- previous major bleeding ie pulmonary hemorrhage
- current minor bleeding ie petechiae
- concurrent coagulopathy
- patient requires surgery or exchange transfusion

Plt count 50-99K do not transfuse

Plt count >99K do not transfuse

(Roberts & Murray, 2003).

References

Cloherty, J.P. Goorin, A.M. (2008). Thrombocytopenia. Manual of Neonatal Care. 6th edition. Lippincott, Philadelphia. pp 455-462.

Gyamfi, C. Eddeman, K. (2005). Alloimmune Thrombocytopenia. Clincial Obstetrics and Gynecology. 48, 4. pp 897-909. Downloaded on February 23, 2009.

Roberts, I. Murray, NA. (2003). Neonatal thrombocytopenia: causes and management. Archives Disease Children Fetal Neonatal Ed. Downloaded on February 23, 2009

Scholarship Funds Available!

FANNP was founded to support the educational advancement of Neonatal Nurse Practitioners and remains committed to promoting education for NNPs.

Each year on December 31st, at least 10% of the available monies in the FANNP general operating budget are put in a scholarship fund.

FANNP is proud to be able to award scholarships to nurses and NNPs continuing their educational pursuits in the field of neonatal health care.

Three scholarships were awarded in 2012 to Leigh Ann Cates from Sugar Land, Texas, Joanne Scott from University of Alabama at Birmingham and Jodi Kurtz.

FANNP would like to be able to award more scholarships in 2013, but we can only award scholarships if we receive applications.

"SCHOLARSHIP" continues on page 4

SCHOLARSHIP continued from page 3

Are You, or is Someone You Know Eligible for a 2013 FANNP Scholarship?

FANNP members who attend an educational program leading to a degree related to the health care field between Sept. 15, 2012 and Sept. 15, 2013 are eligible for a 2013 scholarship.

FANNP Scholarship Eligibility Criteria:

Scholarship applicants must be FANNP members.

- All members, student members and associate members are eligible.
- Priority for scholarship award will be given to members, followed by student members and then associate members.
- Priority for scholarship award will be based on length of membership and service to FANNP.

Scholarship applicants must be a licensed RN, ARNP, NNP or equivalent.

• Preference will be given to currently licensed certificate NNPs working towards a NNP degree.

Scholarship applicants must attend an educational program leading to a degree related to the health care field during the application period.

- Preference will be given to those working towards a degree in neonatal health care.
- The application period for the 2013 scholarship is Sept. 15, 2012 to Sept. 15, 2013. (i.e. To be eligible for a 2013 scholarship you must have attended classes sometime between Sept. 15, 2012 and Sept. 15, 2013.)
- An applicant may receive a maximum of two scholarship awards for each degree sought.

Applicants are asked to include a 3-5 page submission for publication in the FANNP newsletter as part of the application process. The submission can be an original article, a paper you submitted for coursework, a case study, best practice clinical update or a literature review.

The completed scholarship application packet must be postmarked by September 15, 2013.

For questions, more information or to obtain an application please contact FANNP via email at: scholarships@fannp. org.



FANNP BRAG BOARD



FANNP is very fortunate to be associated with and supported by a multitude of talented and professional Practitioners who continually grow and develop themselves. The purpose of the "Brag Board" is to call attention to achievements such as acceptance by a professional organization for poster presentations, completing an MSN, DNP or PhD program, passing the NCC exam, acceptance to be published in a professional publication, or even survival of one's dissertation defense. The FANNP would like to recognize the following individuals for their recent accomplishments:

Dr. Terri Marin, PhD, NNP-BC recently received a secondary appointment as Assistant Professor for Emory School of Medicine.

Cori Raiken, MSN, NNP, graduated from the University of Florida's School of Nursing with her MSN degree on August 11, 2012.

Dr. Leslie Parker, PhD, NNP-BC has published in the August 2012, Volume 12, Issue 4 of Advances in Neonatal Care. Her article is titled *Effect of Breast Milk on Hospital Costs and Length of Stay Among Very Low-Birth-Weight Infants in the NICU.*

Dr. Michele Beaulieu, DNP, NNP-BC has secured a position as a pharmacology column author for Neonatal Network. Her first publication, *Avastin for the Treatment of Retinopathy of Prematurity* appeared in the July/August issue. Her columns will appear in every other issue for the next 2 years.



Diana Morgan-Fuchs, MSN,

NNP-BC coordinated the participation of the doctors and practitioner colleagues in her practice at Winnie Palmer Hospital for Women & Babies to contribute gifts to the hospital toy drive during the 2011 Christmas season, in lieu of exchanging gifts among themselves. The gifts were then distributed to the children who were inpatients at Winnie's sister hospital, Arnold Palmer. The event was such a success, the group

has agreed to participate again for the 2012 holiday season.

Congratulations and strong work to all of our recent graduates and Cori Raiken, MSN, NNP. Congratulations also to Drs. Terri Marin, NNP, Leslie Parker, NNP and Michele Beaulieu, NNP for their exciting accomplishments! Do YOU have an exciting professional accomplishment you would like to share with us? If so, please email TiffanyGwartney@gmail.com with submissions. Thank you!



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POCKET NOTEBOOK

Diane McNerney DNP, NNP-BC

Neonatal Exchange Transfusion Part 2

- 1. Definition: To exchange all or part of an infant's blood supply secondary to certain medical conditions.
- 2. Types of volume exchange:
 - A. Double volume exchange transfusion is replacing the infant's total blood volume twice, leaving the intravascular blood volume unchanged.
 - B. Partial exchange is either increasing or decreasing an infant's hematocrit, while maintaining a constant blood volume.
- 3. Indications:
 - A. Double Volume Exchange:
 - · Hyperbilirubinemia
 - Hyperammonemia
 - To remove bacterial toxins
 - To correct life-threatening electrolyte and fluid imbalance
 - B. Partial Exchange Transfusion:
 - · Severe anemia with normal or excessive blood volume
 - Clinical pathology
- 4. Double Volume Exchange:
 - Calculate the volume to be exchanged (85 mL x kg x 2)
 - Obtain the hematocrit and pH of the donor blood
 - Obtain pre-exchange blood specimen for bilirubin, blood gas and relevant labs
 - Administer the filtered blood through a blood warmer to maintain a temperature of 35-37° Celcius
 - · Midway through the exchange, obtain a blood gas and bilirubin level
- 5. Partial Volume Exchange:
 - Pre-treatment evaluation:
 - o Obtain consent for blood transfusion
 - Obtain relevant labs
 - · Calculate:
 - O The number of milliliters of normal saline to be exchanged for the infant's blood to lower the hematocrit to the desired value
 - ☐ Exchange the infant's blood for normal saline, in increments not to exceed 5% of the estimated total blood volume
 - ☐ Continue until the total exchange volume is reached
 - $\hfill\square$ Obtain a post-exchange hematocrit
 - ☐ If the hematocrit is 55% or greater, remove an additional 5 ml/kg of infant's blood to prevent further hemo-concentration
 - o The number of milliliters of PRBCs to be exchanged for the infant's blood to increase the hematocrit to the desired level
 - ☐ Exchange the infant's blood for donor blood, in increments not to exceed 5% of the estimated total blood volume
 - ☐ Continue until the total exchange volume is reached
- 6. Potential Complications:
 - A. Double Volume Exchange:
 - Complication associated with UAC & UVC line insertion
 - Micro-emboli
 - Arrhythmias
 - Volume overload
 - · Cardiac arrest secondary to too rapid of an exchange or potassium toxicity
 - Hyperkalemia, hypernatremia, hypocalcemia
 - B. Partial Volume Exchange:
 - Complications associated with UAC & UVC line insertion
 - Micro-emboli
 - Infection
 - Transfusion reaction
 - · Anemia or polycythemia

References.

Gomella, T. L. (2009). Neonatology: Management, Procedures, On-Call Problems, Diseases, and Drugs. John Hopkins Hospital. (2011). Harriet Lane Handbook 19th edition.

Meet the 2012 Kim Nolan Spirit Award Recipient–Terri Marin!

TERRI MARIN, PhD, RN, NNP-BC is the 2012 Kim Nolan Spirit Award (KNSA) Recipient. A former faculty member, who has known Terri for over ten years, and has watched her grow from a neonatal nurse into a research scientist, nominated Terri. Terri's nomination letter stated:

"Terri has a lifelong zest for learning and has achieved a terminal degree to advance the science of neonatal care. She embodies all aspects of the NNP role, having served as a clinician, educator and researcher."

Terri is currently the President of FANNP, and has been involved in her local chapter of NANN. She also serves on the NANN Research Committee. She was recently presented with the 2012 Outstanding Alumnus Award at the University of Tennessee, Knoxville, College of Nursing. Terri was also a finalist for both the 2011 and the 2012 Georgia Chapter March of Dimes' *Nurse of the Year* award.

Terri has an impressive curriculum vitae, listing many presentations and several publications in peer-reviewed journals. Terri's presentations are very enthusiastic, and she receives positive evaluations from students, Nurse Practitioners and other healthcare professionals.

Terri recently received a joint appointment as a research Assistant Professor in the Schools of Nursing and Medicine at Emory University in Atlanta, Georgia. Terri's research focuses on intestinal perfusion, the correlation with the development and severity of NEC, and mesenteric perfusion pattern changes resulting from PRBC transfusions in preterm infants.

Terri and her husband sponsor golf tournaments for the March of Dimes, Breast Cancer Awareness, local/regional hospitals, an "at-risk" youth group, and Kiwanis clubs. She is active in her church and also serves as the historian for the alumni association of her college sorority.

In both her professional and family life, Terri embodies the image and "cando" attitude of Kim Nolan. She also has a deep passion for neonatal nursing and the babies & families for whom she cares.

When reviewing Terri's nomination letter, one of the KNSA committee members commented: "After reading this nomination, I truly can see Kim in the description of all of this candidate's attributes. It made me smile as I thought about Kim's smiling face, and her wonderful spirit, love and passion for the patients and families we all take care of."

Congratulations Terri!

Respectfully submitted, Paula Timoney, DNP

About The Kim Nolan Spirit Award

The Kim Nolan Spirit Award was created to honor the memory of one of the founding members of FANNP. Kim died suddenly 10 years ago while on vacation with her daughter and friends.

Characteristics:

Can-do attitude; Service to family, work, & community

Purpose:

- To honor the contribution that Kim Nolan, founding member, made to FANNP and her community.
- To recognize an NNP who exemplifies the characteristics of Kim.

Eligibility Requirements:

- A nominee must be a member of FANNP
- A nominee may be a practicing NNP, a retired NNP, or a NNP student.

Selection Criteria:

- A nominee should demonstrate service to his/her community or professional organization.
- A nominee should possess excellent communication skills.
- A nominee should demonstrate positive "can-do" behavior in daily activities.

Nominee Characteristics:

• Enthusiastic;

- Family oriented:
- Role model/mentor;
- Caring, nonjudgmental, respectful.

Selection Process:

- Nominations will be accepted from any FANNP member.
- Blinded applications will be reviewed by the Spirit Award Committee members.
- Once selected, the award recipient will receive written notification of selection.

Award Recognition:

The recipient will receive the following:

- Complimentary conference registration and accommodations for this or next year's NNP Symposium in October;
- One year waiver of FANNP dues;
- Recognition in the newsletter and on the Website;
- A certificate suitable for framing;
- A Lladro statue

Previous Recipients:

2002 Pam Laferriere

2003 Madge Buus-Frank

2004 Leslie Parker

2005 Kim Irvine

2006 Karen Theobald

2007 Ruth Bartelson

2008 Cheryl Robinson

2009 Gail Harris

2010 None

2011 Mary Kraus

2012 Terri Marin

Bring It ON...

Answers (questions on page 8)

- **1. Answer is B;** Infants with bilateral renal agenesis have essentially normal fluid and electrolyte balance at birth. This reflects the relatively immature function of the newborn kidney and the insignificant function of the renal nephric system.
- 2. Answer is A; Alkalosis, hypocarbia, hypothermia, and the presence of fetal hemoglobin result in a leftward shift in the oxygen-hemoglobin dissociation (equilibrium) curve, which allows for an increased saturation at a given PO2 level, representing increased oxygen uptake by the blood.
- **3. Answer is C;** Tyrosinemia is treated with Vitamin C.

CLASSIFIEDS

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As a family-owned and operated specialty service for the neonatal health care industry, Linkous & Associates has specialized in the recruitment and placement of NNPs nationwide for over 20 years. LinkousRecruiting.com.

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2013 Classified Advertising in the FANNP Newsletter

Acceptance of Advertising

- Classified ads only
- Link on website for direct submission
- All advertisements are subject to review and approval by the Editor

Ad Options

May run ad in one newsletter or all year- 4 total newsletters, December, March, June, and September issues

Cost

- \$50.00/ad each newsletter or \$150.00 for all 4 newsletters. No cash discounts.
- Payment must be received in full prior to the scheduled close date for the quarterly issue.
- Payments can be made though the PayPal link on the FANNP website

Format

- The classified ad section of the newsletter will be limited to 1 page only with approximately 30 ads per page
- Ads will be processed on a first come first serve basis

Closing Dates for Space and Advertising Materials

- March, 2013-ads must be received by February 8, 2013, and paid in full
- June, 2013-ads must be received by May 10, 2013, and paid in full
- September, 2013-ads must be received by August 9, 2013, and paid in full
- December 2013-ads must be received by November 8, 2013, and paid in full

- FANNP BOD

EDUCATIONAL OFFERINGS

NEO-The Conference for Neonatology Continuous Quality Improvement

February 21- 24, 2013 Hilton Bonnet Creek Orlando, Florida www.neoconference.com

The 26th Annual Gravens Conference on the Physical and Developmental Environment of the High Risk Infant

February 27-March 2, 2013 Sheraton Sand Key Resort Clearwater Beach, FL www.cme.hsc.usf.edu

Texas Association of Neonatal Nurse Practitioners 2013 Annual TXANNP Conference

April 4-6, 2013 Worthington Renaissance Hotel Fort Worth, Texas www.txannp.org

Academy of Neonatal Nursing 10th Anniversary Advanced Practice Neonatal Nurses Conference

April 3-6, 2013 Hyatt Regency San Francisco, California www.academyonline.org

Nationwide Children's Hospital 2013 Neonatal/Perinatal Conference

May 22-24. 2013 Embassy Suites Dublin, Ohio

FANNP's 24th National Neonatal Nurse Practitioners Symposium: Clinical Update and Review

October 15-19, 2013 Sheraton Sand Key Resort Clearwater Beach, Florida www.fannp.org



Thank You!

For Another Successful Year 2012 FANNP Conference Sponsors:

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We'll See You Next Year at FANNP's 24th Neonatal Nurse Practitioners Symposium: Clinical Update and Review

October 15-19, 2013

Sheraton Sand Key Resort Clearwater Beach, Florida



Practice Questions to Prepare for the NNP Certification Exam

- 1. Electrolytes in an infant born with bilateral renal agenesis will generally be:
 - A. Abnormal at birth
 - B. Normal at birth
 - C. Normal for the first 24 hours of life
- 2. Which of the following produce a leftward shift in the oxygen-hemoglobin dissociation (equilibrium) curve?
 - A. Alkalosis, hypocarbia, hypothermia, and the presence of fetal hemoglobin
 - B. Alkalosis, hypercarbia, hypothermia, and the presence of fetal hemoglobin
 - C. Acidosis, hypocarbia, hypothermia, and the presence of fetal hemoglobin
- 3. Tyrosinemia is treated with:
 - A. Sodium Benzoate
 - B. Vitamin B-12
 - C. Vitamin C

Answers on page 6

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