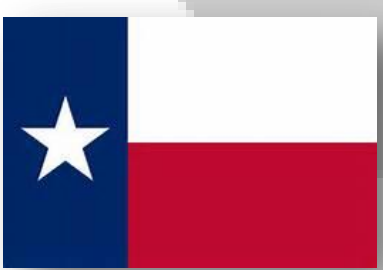
Summer 2018
Volume 8 Number 2

What's TAPANing

The Official Newsletter of the West Texas and Panhandle Region

What's inside this issue



President's Message

I cannot believe how quickly spring has gone by! It's already time for the summer newsletter! I hope you all have had a great year so far. Many of us have graduations going on, whether it is for ourselves or a family member. If any of you are graduating this year, please send pictures so we can include them in our next newsletter.

We continue to work on increasing our membership and improving engagement with current members. If you have any ideas for activities or educational opportunities, please let us know. If you are interested in becoming more engaged in our regional activities, please contact us. We would love to have suggestions and any help that you can give. Also, if you have any articles you would like to write for the newsletter regarding perianesthesia nursing, please feel free to do so.

The 37th annual ASPAN National Conference in Anaheim, California was a blast! There were many great speakers along with interesting topics to learn about. I enjoyed seeing some of our members from Texas. I, along with 3 coworkers, represented Midland Memorial Hospital in a presentation about Preoperative Carbohydrate Loading. It was a great experience and I would like to encourage you all to do a presentation at one of the future conferences. Even if it is something out of your comfort zone, it will be worth the time and effort! Please go to the ASPAN website at http://www.aspan.org and check out pictures of the conference!

Thank you for all you do and have a great summer!!

Sincerely,

Trina Mora, BSN, RN, CAPA, CPAN

Save the date...2018!!

July 9th- September 24th

ABPANC Exam Registration Open

Check out the website. A new testing provider is now in effect which means new rules for scheduling/cancellations/roll overs

August 15th

Fall 2018 Newsletter submission deadline

Submit events, pictures, congratulations, even jokes to admin@tapan-westtexas-panhandle.com

September 24th-November 20th

CAPA CPAN exam dates

Good luck to those of you who are testing!

For more information, visit the ABPANC website at: http://cpancapa.org/

Keep your eyes open for updates on

Texas Association of PeriAnesthesia Nurses State Conference!

Information will be passed along via email and facebook as it comes available

$$ wesTpan Financial Report $$

Quarterly report as of April 30th, 2018

INCOME (including dues, fundraising, donations, etc): $97.32

EXPENSES (reimbursements, meeting expenses): $ 0

BALANCE: $1132.45

wesTpan top sTar-bits

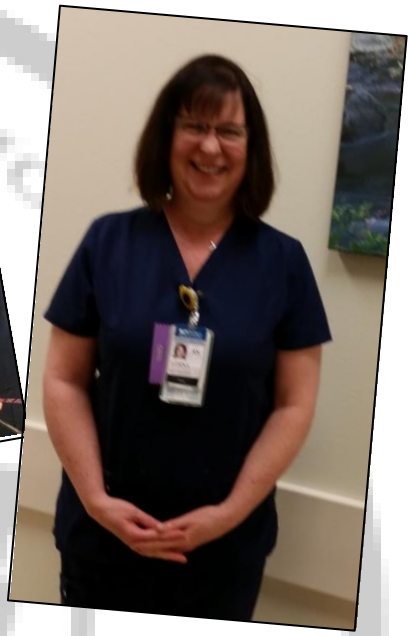
Midland Memorial Hospital:

Nurses in Midland, TX celebrating Certified Nurses Day.
Pictured here are, left to right: Kim Woodard RN, CPAN Trina Mora BSN, RN, CAPA, CPAN
Carrie Watson BSN RN CAPA Laura Newbrough RN, CPAN, CVRN Natalie Kingston RN CPAN
(Photo taken by Jessica Herrera BSN, RN)

Congratulations!!!

Carrie Watson has achieved Certified PeriAnesthesia Nurse status. She now holds CPAN and CAPA certifications. Way to go Carrie, you're an inspiration to us all.

Hendrick Medical Center (Abilene):



Nurses celebrating Certified Nurses Day in Abilene, TX. We wore our purple ribbons showing certification.

Pictured form left to right: Edna Pabruada BSN, RN, CPAN Kat Tollett BSN, RN, CPAN, CST

Manny DeLeon RN, CPAN Linda Jacques RN, CPAN

(picture taken by Abraham Hernandez Specialty Tech II)

And to the right is Lorna Taylor RN, CPAN

(Sorry we missed the photo op together, picture taken by Kat Tollett)

******Share the news from your area! Send your top sTar-bits to be included in ******
What's* TAPANing *to admin@tapan-westtexas-panhandle.com

Join the wesTpan region group on Facebook today at "WesTpan Region" Pictures, events, and announcements are updated often. Share your nursing pictures and comments with everyone!

THE ROLE OF VITAMIN C IN THE TREATMENT OF SEPSIS

Vicky Lessing,RN,BSN,CCRN,CPAN,CAPA

This is a summary of Dr. Paul Marik's interview with Dr. Zubin Damania last March 2017.

Vitamin C is a safe, inexpensive and a readily available vitamin, the usefulness of which has been proven over a long period of time. It is a stress hormone and an important co-factor for many vital human processes.

Vitamin C is a potent antioxidant.

Humans generate reactive oxygen species as part of living. The reactive oxygen species damage tissues, lipid proteins, and cell membranes during sepsis. Inflammation produces massive amounts of reactive oxygen species. The best protection is vitamin C.

Humans and guinea pigs are the only mammals unable to make vitamin C. While other mammals increase synthesis of vitamin C during stress, humans and guinea pigs depend on ingesting enough vitamin C to meet their daily requirements.

Normal people on regular diets have plasma levels of 40-60 u/mol/L. In sepsis, the levels plummet. Most people have levels of 11.3 u/mol/L which indicate scurvy. Some have levels below detection characterized by changes in mental status, edema, swelling of tissue, and cell- to-cell adhesion issues.

The inability to generate Vitamin C makes humans very susceptible to dysfunction in a variety of biochemical pathways that are vital for surviving critical illness such as sepsis. Dr. Paul Marik's experimental model of sepsis treatment with vitamin C limited the deleterious consequences of sepsis with multiple mechanisms that reduced pro-inflammatory responses, enhanced endothelial barrier functions, and prevented sepsis coagulation abnormalities.

In 1949, Dr. Fred Klenner used IV vitamin C to treat the viral infection known as poliomyelitis. At first, he gave large doses of oral vitamin C and measured GI absorption.

Humans and guinea pigs are the only mammals unable to make vitamin C.

There is a protein in the gut called sodium vitamin C transport protein. This transport protein is easily saturated. Once saturated, it is unable to transport Vitamin C. Dr. Fred Klenner discovered that the saturatable level is greater with certain doses. Amounts over 500mg are wasted and eliminated in feces. Incremental increases in doses make serum levels rise. The intravenous method overcomes the transport protein problem by bypassing the GI tract and can obtain high levels systemically.

Vitamin C has anti-inflammatory and vasopressor properties. Corticosteroid has a synergistic effect with vitamin C. Corticosteroid helps vitamin C get into the cell.

Production of catecholamine, norepinephrine, dopamine, serotonin, and vasopressor requires vitamin C as an essential cofactor for the activity of monooxygenase and dioxygenase enzymes, including those enzymes required for the synthesis of catecholamines and vasopressin. In addition, vitamin C binds adrenergic receptors increasing catecholamine sensitivity. Production of essential hormones is reduced if vitamin C level is low.

> *…sepsis treatment with vitamin C limited the deleterious consequences of sepsis with multiple mechanisms that reduced pro-inflammatory responses, enhanced endothelial barrier functions, and prevented sepsis coagulation abnormalities.*

Transporting vitamin C into cells requires sodium vitamin C transporter 2 (SVCT). Infection and sepsis decrease excretion of the transporter, so vitamin C does not get into the cell. Corticosteroid increases excretion of that protein to get into the cell. Cortisol binds into the receptor (glucocorticoid receptor) for corticosteroid to work. In sepsis, the receptor is damaged by inflammatory response. Vitamin C prevents it from happening.

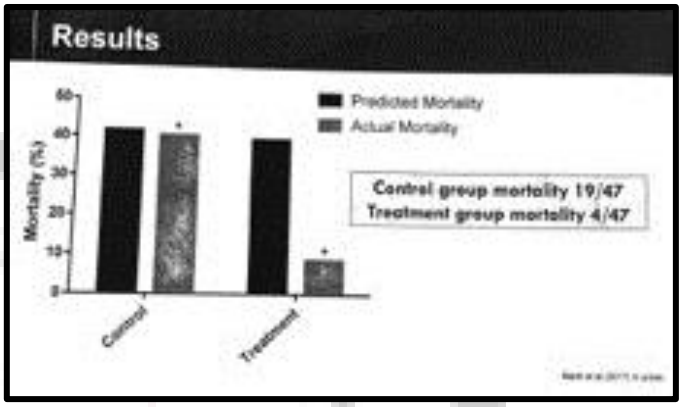
Another vitamin being used in conjunction with Vitamin C in the treatment of sepsis is thiamine. Thiamine is an essential co-factor from pyruvate dehydrogenase which gets pyruvate into the Kreb Cycle. The Thiamine Original Theory states that vitamin C is metabolized, broken down into dehydroscurvic acid, and converted into oxylate which can damage the kidneys and cause kidney stones. Thiamine is involved in metabolism of oxylate. If deficient, the level of oxylate can increase. Dr. Michael Donnino from Harvard found out that 30% of septic patients are thiamine deficient.

State-of-the-art care requires the early use of antibiotics, the use of pressors and fluids. Early use of a cocktail consisting of vitamin C, corticosteroid, and thiamine, may prove to be effective in preventing organ dysfunction, including acute kidney injury, and reducing the mortality of patients with severe sepsis and septic shock. Additional studies are required to confirm these preliminary findings.

Vitamins?

Retrospective before & after study

- 7 months treatment group compared with 7 months prior
- 47 patients in each group (control & treatment)
- Single center
- Treatment administered to severe sepsis & septic shock
- PCT > 2 ng/ml



Treatment:

- Vitamin C - 6 grams IV per day x 4 days or until ICU D/C
- Thiamine (B1) - 200 mg Q 12 hours or until ICU D/C
- Hydrocortisone 50 mg Q 6 hours x 7 days or until ICU D/C

Marik et al (2017) Crit Care Med

Both groups received:

- Broad spectrum antibiotics
- Conservative fluids
- NE for MAP < 65
- Vasopressin added when NE dose > 20 mcg/min LPV
- Avoided Hyperoxia
- DVT prophylaxis
- Early enteral feedings

Why vitamin C?

- Potent antioxidant
- Scavenges O2 free radicals
- Protective to the endothelium

Marik et al (2017) Crit Care Med

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Vicky Lessing recently transferred to Cath Lab Recovery after working for 32 years in PACU at Abilene Regional Medical Center. Prior to that, she worked in Critical Care for 8 years and has maintained her certification in critical care for 22 years. She also has certifications in Phase 1 and Phase 2. Vicky also works at Hendrick Medical Center as pool in Phase 1 PACU. Thank you Vicky for sharing this fascinating information with all of us! It will be interesting to see how treatment will change in light of these studies.

wesTpan Region Officers

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Any officers can be contacted at:
admin@tapan-westtexas-panhandle.com

Thanks to those of you who have responded to the letters and emails sent to members. Your voices have been heard and we would love to hear from the rest of you! Send a note with any input you would like to share.

Please submit any items or ideas you would like to see included in the newsletter to admin@tapan-westtexas-panhandle.com

AND…

Don't forget Facebook

WesTpan Region

Thank You!!

Editor's Note:

What's TAPANing is the official Newsletter of West Texas-Panhandle Region.

Contributions to *What's TAPANing* are encouraged. All articles and comments relevant to Perianesthesia care must be double spaced and typed. The author is responsible for providing appropriate references for accuracy and reliability of information.

Submission Deadlines:

Feb 15th - Spring newsletter
May 15th - Summer newsletter
August 15th - Fall Newsletter
November 15th - Winter newsletter

Photos are property of the editor unless otherwise noted. Send comments, suggestions, and/or submissions (including individual achievements!) to admin@tapan-westtexas-panhandle.com