LIFELINE NEWSLETTER

STUDENT NURSES' ASSOCIATION

AT UNIVERSITY OF CENTRAL FLORIDA

ORLANDO

Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

Editor's Piece

UCF SNA Media Director

Erick Gonzalez, Basic BSN '20

Hey everyone, My name is Erick Gonzalez and I am the SNA Media Director for the 2019-2020 academic year! I'm excited to be working with you all this year and look forward to the year ahead. A little about myself: I was born and raised here in Orlando, Florida. I speak 3 languages English, Spanish and German. In my freetime I enjoy listening to music, playing the drums whenever I can, and hanging out with friends! I currently have two pets, a dog and a cat.

I originally wanted to major in meteorology at FSU but decided on going to UCF for nursing. I guess I never really thought I would end up in nursing school let alone UCF's nursing school but here I am!

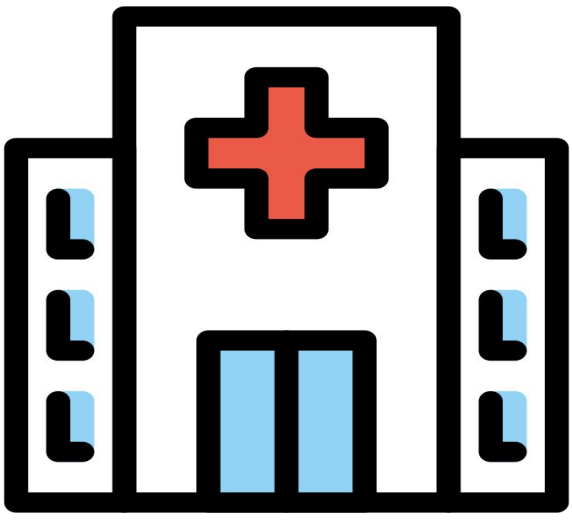
Volume 11 – Issue #1 May/June 2019

Lifeline Newsletter

Student Nurses' Association – UCF Orlando

I must say this past year has been quite the ride. I've learned so much in such a short amount of time and I am eager to learn more.

My role as Media Director is making sure all SNA social media is up to date, creating the newsletter and reminding everyone to submit something to the newsletter! Please, please reach out to me if you're thinking about submitting something, want to submit something, or if you have any questions regarding submissions! This a great way to share your thoughts on school, clinical, or really anything healthcare/nursing related. I look forward to this upcoming academic year!



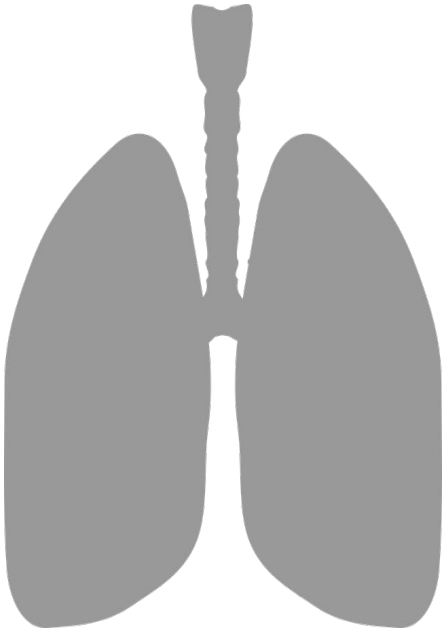
Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

Respiratory Distress Syndrome in the Newborn

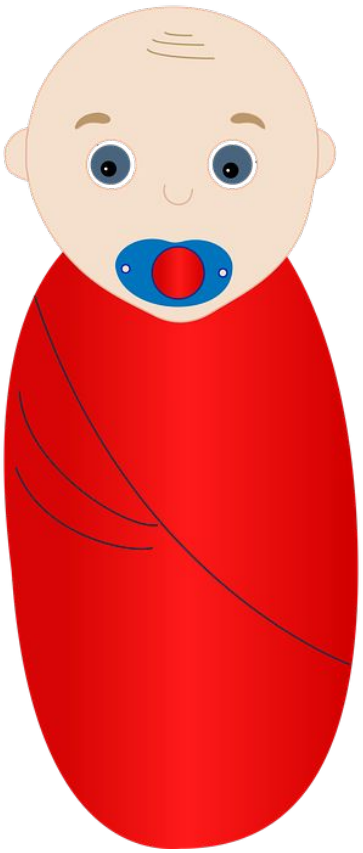
Jacqueline Pajarillo, Basic BSN '20

Respiratory distress syndrome (RDS) is a lung disorder caused by a lack of surfactant. Surfactant, which is produced in the lungs, is a lipoprotein that helps the lungs fill with air during inhalation and also keeps the alveoli from collapsing during exhalation. Surfactant is produced in utero, starting around the 24th week of gestation. Production peaks during the 35th week and babies born beyond this term usually have enough surfactant to maintain an adequate respiratory pattern. Preterm babies born before the 35th week, regardless of size or birth weight, have a high risk of developing RDS.

Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando



The signs and symptoms related to RDS in the newborn will manifest quickly. The neonate will present with tachypnea, nasal flaring, expiratory grunting, retractions, decreased breath sounds, and apnea. These clinical manifestations occur quickly, almost right after birth. Prompt intervention is key to decrease the risk of further hypoxia and respiratory acidosis.

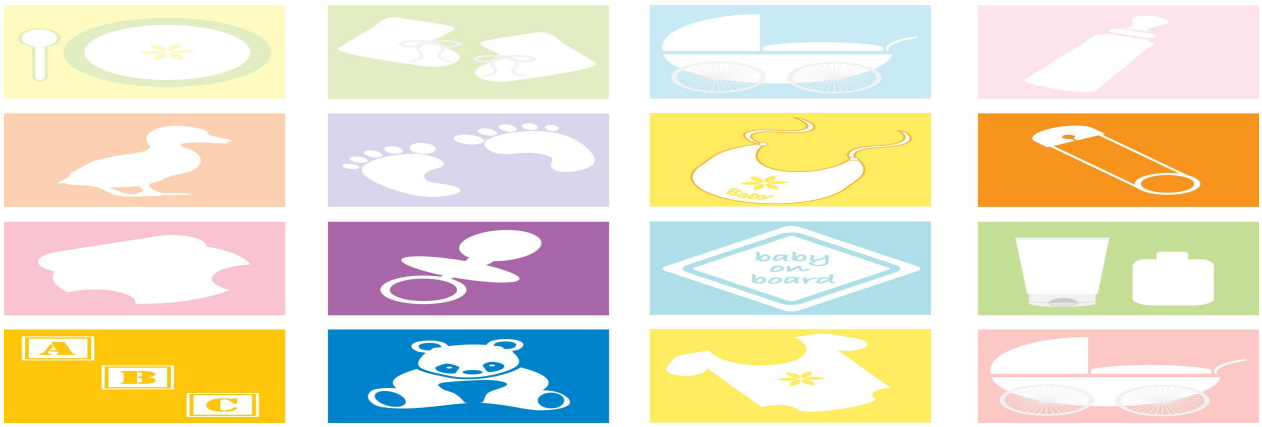


Surfactant replacement therapy may be initiated. Synthetic surfactant is given via an endotracheal tube. This has been shown to positively improve neonatal breathing patterns, oxygenation status, and can decrease the need for prolonged ventilatory support. Second or repeat doses might be necessary. Some instances have shown immediate respiratory improvement after initiation of surfactant replacement therapy.

Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

Nursing interventions need to be done immediately. Oxygen must be given to decrease permanent neurological issues. Other interventions include monitoring the color, respiratory rate, and work of breathing. Skin color must be assessed for signs of duskiness, pallor, or cyanosis. Careful suctioning of the airway with a bulb syringe can facilitate breathing efforts by reducing mucus in the nasal passages. Once the newborn is stabilized, constant monitoring of the respiratory rate, skin color, and cardiovascular system is key. Constant monitoring of the oxygen saturation is important. Assessment of arterial blood gases must also be done to ensure adequate gas exchange.

Seeing a newborn grunt and gasp for air seconds after birth is frightening. With the correct clinical assessment and nursing knowledge, nurses can positively turn a newborn with labored breathing into a smiling, happy baby.

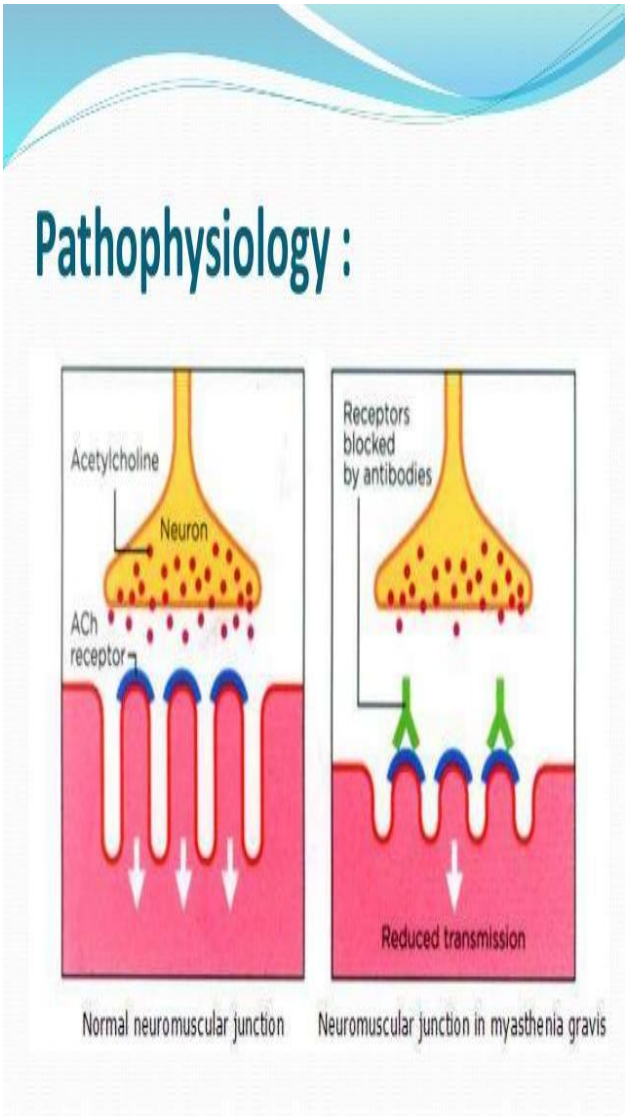


Volume 11 – Issue #1
May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

Myasthenia Gravis

Kathleen Jaramillo, Basic BSN '20

Myasthenia Gravis is a chronic neuromuscular autoimmune disease characterized by weakness and rapid
fatigue of any of the muscles under voluntary control. The word Myasthenia Gravis comes from the Latin and Greek words meaning "Grave Muscle Weakness."
In a normal patient, the central nervous system sends a signal to neurons in the neuromuscular junction to release acetylcholine, a chemical that is necessary for muscle contraction. Acetylcholine will then bind to acetylcholine receptors on muscle fibers to cause muscle contractions.



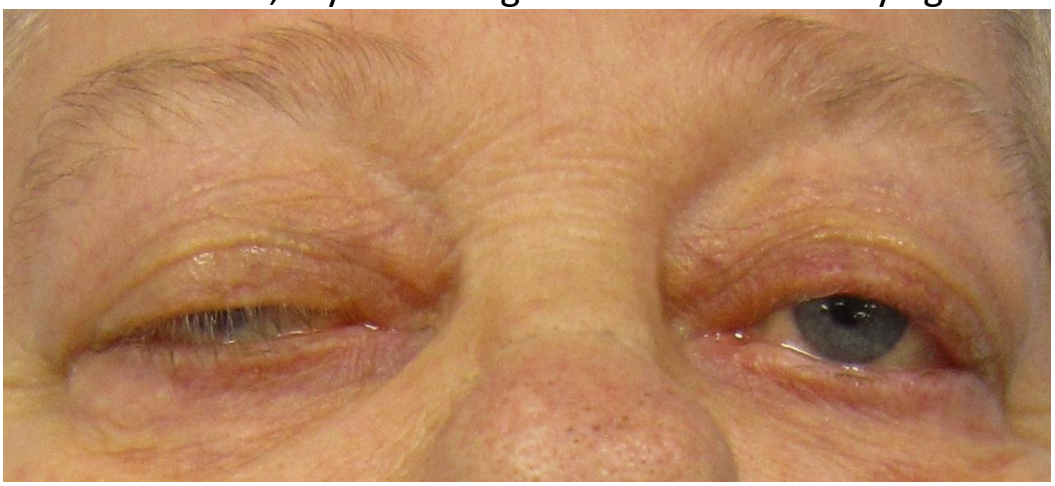
Volume 11 – Issue #1 May/ June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

Statistical Information

● In the U.S., the prevalence of myasthenia gravis is estimated at 14 to 20 cases per 100,000
people, approximately 36,000 to 60,000 cases (rare disease)
● The prevalence appears to have risen over the past 2 decades, mostly due to earlier diagnosis
and increased lifespan of affected people
● 15% to 20% of myasthenia gravis patients will experience at least one myasthenic crisis in their life

Risk Factors

● There are no known proven risk factors of myasthenia gravis
● People that have a family history of myasthenia gravis are at a greater risk to get the disease so there could be a possible genetic link
● Women are more likely to get myasthenia gravis between the ages of 20-40 and men are more likely to get myasthenia gravis after the age of 60. However, myasthenia gravis can occur at any age.



Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

Clinical Manifestations

● Eye muscles (usually the first sign and symptom)

○ Ptosis: drooping of one or more eyelid
○ Diplopia (double vision) which can be vertical or horizontal and can be resolved by closing one eye

• Face and Throat muscles (15% of patients, face and throat muscles are first S/S)

○ Altered speaking (speech may sound soft or nasal depending on which muscle is affected)
○ Difficulty swallowing (can choke very easily which makes it hard to eat, drink, or take pills)
○ Problems chewing (muscles used for chewing can wear out halfway through a meal, especially if eating something that is hard to chew)
○ Limited facial expressions (may have a hard time smiling)

● Neck and Limb muscles

○ MG can cause weakness in neck, arms, and legs, but usually happens along with other muscle weakness of the eyes, face, or throat
○ Usually affects more of the arms than legs
○ Affected neck muscle can cause a person with MG to not be able to hold their head up

Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

Diagnostic Tests

- History & Review (looking for S/S)
- Neurological Examination
  - Testing neurological health by testing reflexes, muscle strength, muscle tone, senses of touch and site, coordination, and balance
  - Looking for any signs of muscle weakness

- Edrophonium Test
  - Injection of a chemical called edrophonium chloride (Tensilon) which may result in temporary improvement of muscle strength which can indicate myasthenia gravis.
  - Edrophonium chloride blocks an enzyme that breaks down acetylcholine (chemical that transmits signals from nerve endings to muscle receptor sites)

- Ice Pack Test (cheap, easy, and can be done in 3-5 mins bedside)
  - Instead of the edrophonium test, doctors can choose to conduct an ice pack test. If a person has ptosis, the doctor will fill a bag with ice and place it on their eyelids. The doctor will observe for signs of improvement. The ice pack is thought to cool the tissues and more specifically the skeletal muscle fibers, which will inhibit acetylcholinesterase (enzyme that breaks down acetylcholine) at 28°C.

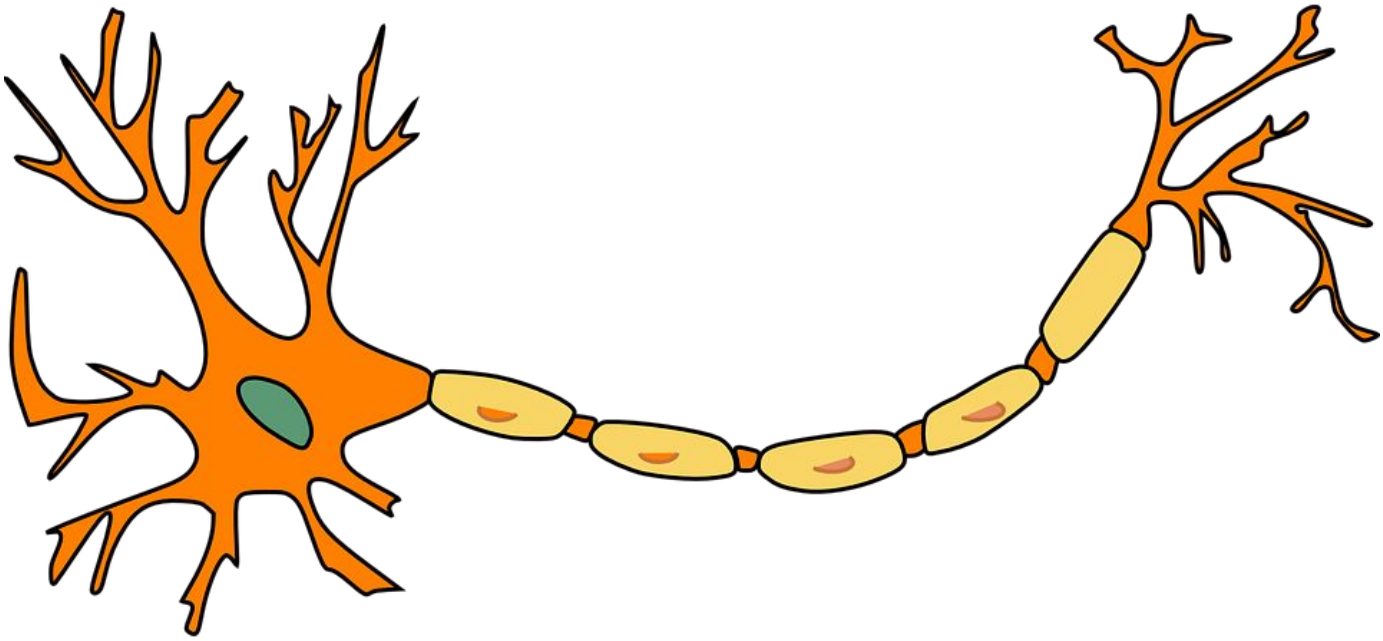
- Blood Analysis
  - A blood test may reveal the presence of abnormal antibodies that can disrupt the
receptor sites where nerve impulses signal your muscles to move.

Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

- Repetitive Nerve Stimulation
  - A doctor will attach electrodes to the skin of the patient over muscles that are going to be tested. The doctor will send small pulses of electricity through the electrodes to measure the nerve's ability to send a signal to your muscle. For a diagnosis of MG, doctors will need to test the nerves several times to see if their ability to send signals worsen with fatigue.

- Imaging Scans
  - A doctor may order a CT scan or an MRI to check if there is a tumor or other abnormalities in the thymus gland.

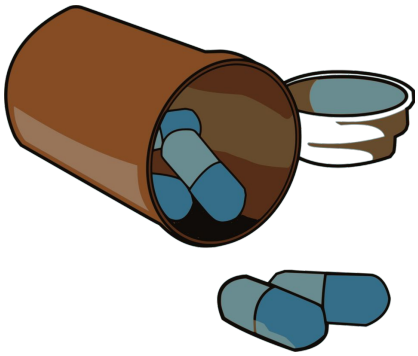
- Pulmonary Function Tests
  - May be used to evaluate whether the condition they come in for is affecting their breathing



Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

Medical Treatments

● There are no treatments that can cure Myasthenia Gravis, but they can help relieve symptoms



● Medications
○ Cholinesterase Inhibitors [Mestinon]
■ Blocks acetylcholinesterase (enzyme that breaks down acetylcholine which is necessary for muscle contraction)
○ Corticosteroids [Prednisone]
■ Inhibit the immune system which limits antibody production
○ Immunosuppressants [CellCept]
■ Alters immune system

● IV therapy
○ Plasmapheresis
■ Filters blood similar to dialysis
■ Blood is routed through a machine that removes the antibodies that blocks acetylcholine receptors
■ Therapeutic effects only last a few weeks and after repetitive treatments, doctors may need to insert a catheter into the chest because it will be difficult to gain access to veins.

○ IV immunoglobulin (IVIg)
■ For severe or rapidly worsening Myasthenia Gravis
■ Immune globulins (normal antibodies) are collected from donors and destroys
and neutralizes autoantibodies (antibody attacking own tissues)
■ Benefits usually last no more than three to six weeks

● Surgery
○ Thymectomy
■ 15% of Myasthenia Gravis patients have a tumor, called a thymoma, in their
thymus gland (involved with immune system). Surgery will need to be conducted to remove the thymus gland
■ If there is no tumor in the thymus gland, surgery can be done to remove the thymus gland to improve symptoms of Myasthenia Gravis. In some cases,symptoms can be eliminated, and patients may be able to stop taking medications.

Nursing Diagnoses

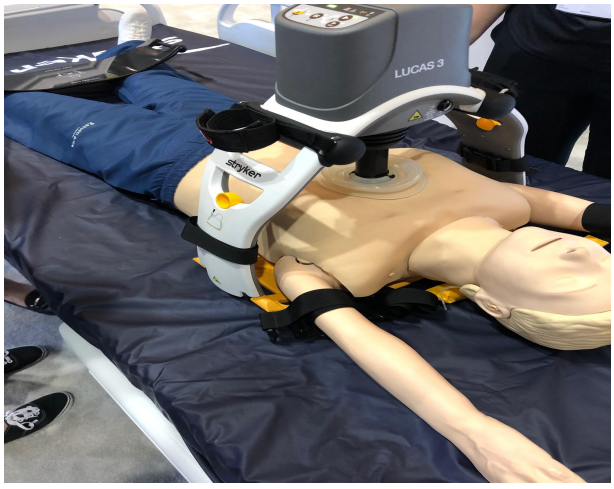
● Ineffective airway clearance related to intercostal muscle weakness and impaired cough and gag
reflex
● Impaired nutrition, less than body requirements, related to impaired swallowing
● Activity intolerance related to muscle weakness and fatigability
● Disturbed body image related to inability to maintain usual lifestyle and role responsibilities

Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

NTI Orlando 2019

Jacqueline Pajarillo, Basic BSN '20

Walking through the doors of the Orange County Convention Center, I could feel my heart racing. I was nervous, overwhelmed, but excited all at once. Orlando hosted The National Teaching Institute and Critical Care Exposition on May 20-23, 2019. Graciously, Dean Sole invited us UCF College of Nursing students to be her special guests. I replied to her invitation within seconds of reading her email – critical care nursing is where I want to specialize. Since attending this convention, it made me realize the importance of joining the association of your nursing field. It will strengthen your networking skills, it will help keep you up-to-date not only on didactic knowledge, and it will also introduce you to the plethora of medical technology that might soon be used on your unit.



Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

The NTI and Critical Care Exposition had hundreds of classes to attend. These classes ranged from pharmacology to employee management to ECMO stabilization to preceptorship. There was a class for everyone to enjoy but definitely not enough time to make it to all! After attending the classes I had preselected, I made my way down to the showroom. It was bustling with more educational material, vendors selling awesome nursing supplies at an extremely reduced price, and of course, the freebies! Even in critical care nursing, there is still plenty of different avenues to take. You can be a critical care nurse in a unit or be a flight nurse!

Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

I spoke with both the flight nurses from Advent Health and Orlando Health and they mesmerized me with the skill set and knowledge that they both had. Both hospital systems even had their helicopters on site – and yes I got to climb in and sit in the pilot seat! I must've lost track of time because before I knew it, the lights flickered on and off and a voice over the intercom system thanked us for attending the exposition.

I learned so much attending this exposition. Not only did I get to have fun with a handful of my friends, but I also was able to learn and mingle with seasoned critical care nurses. I spoke with many advisors of different graduate schools and received handfuls of information about CRNA programs, nurse practitioner programs, and Ph.D. programs as well. I learned about all the advancements that the medical field is doing and even got to touch and perform with some of the new technology. It was an educational experience wrapped up in a day of fun. I walked out that day with reaffirmation that I am working in the career field that I was born to be in.

Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

President's Corner

UCF SNA Orlando President

Kendall Neswold, Basic BSN '20

Happy summer everyone! I hope you have found this time relaxing and rejuvenating. Hopefully you can use this time to focus on yourself and catch up with everything you might have had to set aside during the school year. Make some time to catch up with friends and family, or simply take the time to read a good book (one you won't be tested on).

On June 14th, a few SNA officers, some additional seniors, and I were able to attend the Meet and Greet for the new 2021 cohort! It was a fantastic opportunity to meet the new students who will be joining our program in the fall and to be able to answer some of their questions regarding life as a nursing student.

Volume 11 – Issue #1 May/June 2019
Lifeline Newsletter
Student Nurses' Association – UCF Orlando

It was so exciting for these new students to be able to learn all about the nursing profession and hopefully get excited for their future careers. I hope the senior cohort is just as excited about getting involved and help out some new students by signing up for our junior/senior buddy program.

This program helps juniors to make a friend in the senior cohort and learn all about the program, and also be able to ask questions if they are every unsure of anything. I am so excited for this up and coming school year and the fun things SNA has planned.

Volume 11 – Issue #1 May/June 2019

Lifeline Newsletter

Student Nurses' Association – UCF Orlando

The new SNA board has been working very hard planning the upcoming events. We are very excited to be kicking off our year with the Back to School BBQ on August 26th at 1700 to have a fun place to meet your new buddies and the entirety of the new nursing cohort of 2021! If you have any suggestions for what you would like to see SNA do this year, please reach out to anyone on our amazing board and we will try our best to implement your ideas right away!

Announcements & Upcoming Events!

BACK TO SCHOOL BBQ!

August 26th, 1700 @CON

Contact Info for the 2019-2020 SNA Board!

President	Kendall Neswold	ucfsnaorlpresident@gmail.com
Vice President	Jake Sandoval	ucfsnaorlvicepresident@gmail.com
Secretary	Dana Monsalvatage	ucfsnaorlsecretary@gmail.com
Treasurer	Rebecca Smith	ucfsnaorltreasurer@gmail.ocm
Clubhouse Director	Megan Argento	ucfsnaorlclubhouse@gmail.com
Historian	Jordyn Watson	ucfsnaorlhistorian@gmail.com
Legislative Director	JohMarc Dela Cruz	ucfsnaorllegislative@gmail.com
Breakthrough to Nursing Director	Kathleen Jaramillo	ucfsnaorlbtn@gmail.com
Media Director	Erick Gonzalez	ucfsnaorlwebmaster@gmail.com
Community Health Director	Amanda Stack	ucfsnaorlcommunity@gmail.com
Fundraising Chair	Bryana Blanco	ucfsnaorlfundraising@gmail.com
Accelerated Liaison	Jessica Ramirez	ucfsnaorlaccelliaison@gmail.com
Advisor	Joyce DeGennaro	Joyce.DeGennaro@ucf.edu

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Twitter: @snaucforlando
Website: snaucforlando.com

Top Point Earners
Basic BSN 2021:
Accelerated 2020: Andrew Bedaure, Alexis Hollingsworth, Kelsey Tilton
Basic BSN 2020: