# The Coalition Chronicle

Coalition for Baccalaureate and Graduate Respiratory Therapy Education

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*Spotlight Article*

## University of Mary/CHI St. Alexius Health


**By Chris Sperle, RRT, PhD**

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**Bismarck, North Dakota**

## Overview

The University of Mary/CHI St Alexius Health Respiratory Therapy Department in Bismarck, North Dakota prepares students with the professional competencies and leadership skills needed to function as registered respiratory therapists upon graduation who not only provide therapy, but who are ready to consult on the provision of respiratory care. We offer multiple degrees in respiratory therapy to meet students wherever they are in their education and career. The on-campus programs are for students new to the field and provide hands-on classroom education, laboratory instruction and clinical experiences at local hospitals. These entry-level programs are offered at the baccalaureate and master's degrees. Students in the baccalaureate degree entry-level program complete two academic years of pre-professional coursework and

two full years of professional respiratory therapy courses, including a summer term. Students with baccalaureate degrees in other disciplines who have completed specific prerequisite courses can enroll in the professional program at the graduate level and earn an entry-level Master of Science degree instead of a second baccalaureate degree.


The entry-level programs are sponsored by a hospital/university consortium consisting of CHI St. Alexius Health and the University of Mary. The pre-professional baccalaureate curriculum (freshman and sophomore years) is offered on the University campus and the professional program (two years plus a summer term) is offered on the CHI St. Alexius campus. Students may also complete pre-professional courses at other universities or colleges and transfer to the University of Mary for the professional phase. The master's program requires applicants to have a baccalaureate degree from any regionally accredited college or university in the United States.

In addition to our entry-level programs, we also offer a degree advancement program (RRT to BSRT curriculum) for students with their RRT and an AS or AAS degree in respiratory therapy. The RRT to BSRT completion program is designed to assist registered respiratory therapists in completing the bachelor of science degree. The RRT to BSRT program prepares students to provide enhanced patient care, to understand the diverse disciplines of the respiratory care profession, strengthen their understanding of the health care industry as a whole, and to understand the framework of ethical and informed decision-making. By its very nature, this program is designed to address the University of Mary mission by serving the profession of respiratory therapy in the mid-west region and beyond.

Our RRT to BSRT completion program accepts both the AS and AAS degrees upon transfer to our institution. Students must pass the NBRC Registered Respiratory Therapy (RRT) examination prior to the conferral of their BSRT degree. The University of Mary offers up to 40

semester hours of prior learning credit for the RRT credential that can be used towards the BSRT degree. All students must meet the University of Mary upper division requirement of 44 hours of 300-400 level course work for the BS degree.

The University of Mary now offers Year-Round Campus as a one-of-a-kind college career option that lets students achieve a bachelor's degree in as little as 2.6 years and a master's in four years. By adding a full summer semester to the school year, our innovative Year-Round Campus gives students the opportunity to study throughout the year so they can graduate sooner and get a head start on their life and career. There are also study-abroad options available in the summer.

The University of Mary also cosponsors a radiology technology program with CHI St. Alexius Health. In addition, the University has its own healthcare programs on its campus in nursing (LPN-BSN, RN-BSN, BSN, AND-MSN, BSN-MSN, MSN, DNP), physical therapy (DPT), occupational therapy (DOT), and speech therapy (MS). Other health related programs include exercise science (BS, MS), biomechanics (BS) kinesiology (MS), and athletic training (MS), communication sciences and disorders (BS), medical laboratory science (BS), bioethics (MS) and healthcare administration (MSB/MBA).

## Program History

The respiratory therapy program began in 1971 at St. Alexius Medical Center as a hospital-based program with no formal ties to a college or university; nevertheless, prerequisite college courses in math and the sciences were required for admission to the program. The program was started by a physician husband-and-wife team with specialties in anesthesia, pulmonology, and critical care. As a result, a legacy of physician involvement in the education of respiratory therapists was started, which persists today.

In 1982, St. Alexius Medical Center formalized a co-sponsorship agreement with its sister institution, the University of Mary. At that time both institutions operated under the auspices of the Sisters of St. Benedict of Annunciation Monastery. Under this agreement, St. Alexius maintained fiscal control of the program and its physical facilities, and the University granted formal academic credit for respiratory therapy courses. Respiratory therapy faculty members remained St. Alexius employees, but were granted regular faculty status with rank by the University. The University assumes quality control of the respiratory therapy curriculum through its standard academic review process. The University also provides student services for respiratory therapy students, including academic counseling and financial aid. This arrangement continues to the present day.

Originally, the University awarded program graduates the associate of science degree. In 1991, the University of Mary approved a Bachelor of Science degree entry level curriculum, eliminating the A.S. degree. This change reflected the belief of the advisory committee members and the faculty that preparation for registry level competencies could not be satisfactorily achieved at the A.S. level.

In 2012, the University of Mary approved a Master of Science entry level curriculum designed for individuals with baccalaureate degrees in other fields. Before the master's option was implemented the program could only offer a second BS degree to such applicants. In 2017, the University of Mary approved a Bachelor of Science (RRT to BSRT) curriculum designed for individuals with an associate degree in respiratory therapy. This program serves and assists the respiratory care profession in degree advancement.

## Mission

To prepare students at the baccalaureate and graduate levels to become competent registered respiratory therapists who think critically, engage in evidence-based practice, function as expert resources to physicians and other healthcare professionals, assume leadership roles, and interact respectfully and compassionately with others regardless of cultural background, values, and lifestyles.

## Vision

To be recognized as a premier respiratory therapy educational program in the United States, known for the quality and professional competence of its graduates.

## Bachelor of Science Curriculum

The BSRT curriculum provides students with the professional competencies needed to function as registered respiratory therapists upon graduation, who coordinate and provide expert respiratory care and serve as consults on its provision. The curriculum emphasizes a deep understanding of normal and deranged physiology and its connection to treatment, diagnostic procedures, and disease management. In addition, the curriculum emphasizes the human interaction component of patient care and patient education. Healthcare reimbursement, community health promotion, bioethics, research, and evidence-based care are also components of the curriculum.

## Admission Requirements


To qualify for admission to the professional program, students must complete all pre-professional requirements with a minimum grade of "C" in each course and an overall grade point average of 2.5 or higher. Students who successfully complete these requirements must submit a separate application to the Respiratory Therapy Department to be considered for admission to the professional program.

### Prerequisite Courses

Before entry into the professional program, students must complete approximately 62 semester hours of prerequisite courses, including anatomy & physiology, microbiology, college algebra, chemistry,

physics, psychology, ethics, communication and other general education courses in the humanities and social sciences. The professional program consists of 71 semester hours, for a total minimum of 133 credits for the BSRT.

The first semester of the professional program (junior year) consists of classroom and laboratory courses as well as observations in the clinical setting; clinical patient care courses begin in the second semester and gradually increase in intensity to the end of the program for a total of over 1000 hours. Clinical experience includes medical teaching rounds with pulmonologists, intensivists, cardiothoracic surgeons, and anesthesiologists. Each semester consists of both clinical and classroom components. In the senior year fall and spring semesters, regular classes occur during the first seven weeks, and clinical practicums occupy the remaining 8 weeks (40 hours/week). In the final semester, seniors write their own clinical learning contracts, which allow them to focus on several areas of special interest to them; students are responsible for scheduling their own clinical hours and contacting their own clinical instructors and physicians.

**Respiratory Therapy Professional Phase**

**Junior**

***Fall Semester***

| | |
|---|---|
| RTH 301 Introduction to Respiratory Care | 3 |
| RTH 305 Basic Procedures | 6 |
| RTH 307 Basic Procedures Lab | 1 |
| RTH 335 Clinical Cardiopulmonary Physiology | 6 |
| **Total Credits** | **16** |

***Spring Semester***

| | |
|---|---|
| RTH 320 Clinical Practicum I | 3 |
| RTH 422 Clinical Cardiopulmonary Assessment | 5 |
| RTH 426 Human Diseases I | 4 |
| RTH 436 Critical Respiratory Care | 5 |
| RTH 437 Ventilator/Critical Care Laboratory | 1 |
| **Total Credits** | **18** |

| | | |
|---|---|---|
| ***Summer Semester*** | | |
| | RTH 416 Pediatric/Neonatal Respiratory Care | 3 |
| | RTH 427 Human Diseases II | 2 |
| | RTH 430 Clinical Practicum II | 5 |
| | **Total Credits** | **10** |
| **Senior** | | |
| ***Fall Semester*** | | |
| | RTH 411 Respiratory Care in Alternate Sites | 2 |
| | RTH 418 Department Leadership | 2 |
| | RTH 450 Research in Respiratory Care | 2 |
| | RTH 441 Clinical Practicum III | 8 |
| | IPE 401 Interprofessional Health Care | 1 |
| | **Total Credits** | **15** |
| ***Spring Semester*** | | |
| | RTH 420 Professional Seminar | 2 |
| | RTH 452 Health Promotion | 2 |
| | RTH 428 Respiratory Care Specialty | 8 |
| | **Total Credits** | **12** |
| | **Professional Phase Total Credits** | **71** |
| | **BSRT Degree Total Credits** | **133** |

## Master of Science Curriculum

The MSRT curriculum is an entry level curriculum; that is, like the BSRT curriculum its completion confers eligibility to the graduate to sit for the NBRC credentialing exams. It is designed for students who already possess a non-respiratory therapy baccalaureate degree. Thirty-eight semester hours (ten courses) of the 71 credit BSRT curricula can be taken for graduate level credit, which entails additional academic coursework requirements, such as papers, presentations, and projects. A major capstone clinical research project is required in the second year, culminating in a paper suitable for submission to a scientific journal for publication.

There is a great demand for RRTs with master's degrees in respiratory care to serve as faculty members, program directors, and directors of clinical education respiratory therapy programs located throughout the United States. Additional opportunities such as leadership and research are available for graduates of the master's in respiratory therapy programs.

### Admission Policy

- Baccalaureate degree (non-respiratory therapy) from any regionally accredited college or university in the United States.
- Cumulative GPA of 3.00

## Prerequisite Courses

Chemistry (6 credits)

Physics (3 credits)

Microbiology (3 credits)

College Algebra (3 credits)

Anatomy and Physiology (6 credits)

Ethics (3 credits)

*Grade of "C" or higher for all math/science courses

Admitted graduate students enroll in all professional courses with their undergraduate counterparts; 500 and 600-level courses are dual-numbered for undergraduate/graduate credit.

**MASTER OF SCIENCE CURRICULUM**

**Junior**

| | | |
|---|---|---|
| ***Fall Semester*** | | |
| | RTH 301 Introduction to Respiratory Care | 3 |
| | RTH 305 Basic Procedures | 6 |
| | RTH 307 Basic Procedures Lab | 1 |
| | **RTH 535 Clinical Cardiopulmonary Physiology** | 6 |
| | **Total Credits** | **16** |
| ***Spring Semester*** | | |
| | RTH 320 Clinical Practicum I | 3 |
| | **RTH 622 Clinical Cardiopulmonary Assessment** | 5 |
| | **RTH 526 Human Diseases I** | 4 |
| | **RTH 536 Critical Respiratory Care** | 5 |
| | RTH 437 Ventilator/Critical Care Laboratory | 1 |
| | **Total Credits** | **18** |
| ***Summer Semester*** | | |
| | **RTH 616 Pediatric/Neonatal Respiratory Care** | 3 |
| | RTH 427 Human Diseases II | 2 |
| | RTH 430 Clinical Practicum II | 5 |
| | **Total Credits** | **10** |

| | | |
|---|---|---|
| **Senior** | | |
| ***Fall Semester*** | | |
| | RTH 411 Respiratory Care in Alternate Sites | 2 |
| | **RTH 618 Department Leadership** | 2 |
| | **RTH 650 Research in Respiratory Care** | 2 |
| | RTH 441 Clinical Practicum III | 8 |
| | **IPE 701 Interprofessional Health Care** | 1 |
| | **Total Credits** | **15** |
| ***Spring Semester*** | | |
| | RTH 420 Professional Seminar | 2 |
| | **RTH 652 Health Promotion** | 2 |
| | **RTH 628 Respiratory Care Specialty** | 8 |
| | **Total Credits** | **12** |
| | **Professional Phase Total Credits** | **71** |
| | **Total Graduate Credits** | **38** |

## RRT- BSRT Curriculum

Students can advance their career as a registered respiratory therapist by earning a bachelor's degree in respiratory therapy. Health care organizations continue to set higher standards for respiratory therapists. Our flexible respiratory therapy bachelor's degree program will help respiratory therapists acquire the credentials they need to work with more independence in patient care settings, while providing safe and effective respiratory care. Multiple start dates are available every semester, and there is no deadline to apply.

### Admission Policy

Requirements for acceptance into the RRT to BSRT program are:

- Associate of Science (or equivalent) in respiratory therapy from a CoARC accredited institution of higher education.
- Cumulative GPA of 2.50
- GPA of 2.75 or higher in the respiratory therapy courses transferred in.

### Graduation Required Courses

- *Grade of "C" or higher in each of the following prerequisite courses*
  Introduction to Psychology
  Cultural Anthropology **or** General Sociology
  Composition II
  Microbiology
  College Algebra **or** Statistics
  Anatomy and Physiology I

Anatomy and Physiology II
Theology (3 credits)
Ethics (3 credits)

**RRT to BSRT Curriculum**

| | |
|---|---|
| RTH 330 Advanced Cardiopulmonary Pharmacology | 3 |
| RTH 340 Advanced Cardiopulmonary Physiology | 3 |
| RTH 421 Leadership and Management | 3 |
| RTH 435 Advanced Critical Care | 3 |
| RTH 440 Advanced Clinical Cardiopulmonary Assessment | 3 |
| RTH 455 Health Promotion | 3 |
| RTH 470 Research and Evidence Based Practice | 3 |
| RTH 480 Respiratory Therapy Seminar | 3 |
| RTH 490 Respiratory Therapy Specialty Capstone | 3 |
| BUS 351 The American Healthcare System | 3 |
| BUS 407 Healthcare Law & Regulatory Environment | 3 |
| **Total Credits** | **33** |

*RTH 497 RRT to BSRT Prior Learning (1-40) credits: These credits are granted at no charge to the student. These credits can be utilized towards to 124 credit requirements for conferral, or upper division credits if the student should need them.

Total in the program = 33 credits

Total credits required for graduation = 124 credits

Upper division requirements = 44 credits

Liberal art requirements = 52 credits

Allowed for transfer = 62 credits

Total credits required for graduation = 124 credits

## Student and Program Activities and Achievements

The final year of all programs, students are required to plan, design, and implement a community health/wellness promotion project. Examples of projects include COPD education clinics, CPAP clinics, tobacco cessation presentations to legislators and high school students,

sleep apnea education presentations to truckers, inhaled medication education to caretakers at local nursing homes, etc.

The CHI St. Alexius Health/ University of Mary respiratory therapy program is a premier and nationally recognized program. The national accrediting body, Commission on Accreditation for Respiratory Care (CoARC), recently bestowed its Distinguished RRT Credentialing Success Award to the University of Mary program for the sixth time in eight years. One hundred forty nine out of 430 programs received the RRT Credentialing Success Award in 2019, only 26 programs have received the award six or more times.

## Program Highlights

- Our program is nationally recognized for graduate credentialing success and offers a 100 percent graduation rate, graduate employment rate, and graduate pass rate on the licensing exam.
- Our students gain valuable respiratory therapy experience through classroom, laboratory, and clinical practicum courses at CHI St. Alexius Health in Bismarck.
- Our students receive over 1,000 hours of supervised experience in direct patient interaction.
- Our students may opt to take the respiratory therapy pre-med track, which allows completion of all courses required for admission to most medical schools while completing requirements for the Bachelor of Science degree in respiratory therapy.
- Our students develop professional leadership skills in a collaborative learning environment grounded in Christian, Catholic, Benedictine values.
- Our faculty work with students to create a plan of study that works for any student.
- We offer small classes with supportive and caring faculty who are there for our students every step of the way.

## Faculty

**Christine Sperle, PhD, RRT,** is an associate professor, program director and chair of the Respiratory Therapy Department at the University of Mary School of Health Sciences. She has been a respiratory therapy educator for 17 years. She received her Bachelor of Science in respiratory therapy and Master of Education in college teaching from the University of Mary and her PhD in higher education from the University of North Dakota. Dr. Sperle co-authored a chapter on fetal and neonatal cardiopulmonary physiology in *Respiratory Care Anatomy and Physiology; Foundations for Clinical Practice* published by Elsevier-Mosby, St. Louis, soon to be in its fifth edition. She also co-authored a companion workbook for the physiology textbook in 2013. She is active in the North Dakota Society for Respiratory Care, having served as a member of its board of directors as treasurer and director at large. She currently is serving her second term as a North Dakota delegate to the American Association for Respiratory Care (AARC). She is also a member of the Bismarck Tobacco Free Coalition. She is a basic life support (BLS) instructor, and advanced cardiovascular life support (ACLS) instructor.

**Jessica J. Arndt, M.Ed., RRT, RRT-ACCS** is an assistant professor and director of clinical education. She has been a respiratory therapy faculty member for seven years and a practicing therapist for twelve years. She received her Bachelor of Science in respiratory therapy and Master of Education in college teaching from the University of Mary. She is currently in the dissertation phase of her PhD from the University of North Dakota; she expects to defend her dissertation in the summer of 2021. Jessica is an active member of the North Dakota Society for Respiratory Care currently serving her second term as director at large and chair of the Membership Committee. She has been a member of the executive board for the Bismarck Tobacco Free Coalition for nine years where she is currently serving as president. She is an AARC certified COPD educator, basic life support (BLS) instructor, and advanced cardiovascular life support (ACLS) instructor.

**Shawn Small, MSB, RRT** is an instructor in the classroom, lab and clinical setting. He received his Bachelor of Science in respiratory therapy from the University of Mary in 2015. After graduation, he worked at Mayo Clinic in Rochester, MN. During his time at Mayo Clinic, he worked in the Cardiovascular-surgery ICU with adult and pediatric cardiovascular surgery patients and specialized in extra-corporeal membrane oxygenation. In the summer of 2017, he began his career in academia at the University of Mary in the RT program. During that time, Shawn completed a Master of Science in business through the University of Mary. He is an advanced cardiovascular life support (ACLS) instructor and pediatric advanced life support (PALS) instructor.

**Megan Schneider, MSB, RRT** is the coordinator and instructor for the University of Mary's RRT-BSRT online program. Megan graduated with a Bachelor of Science degree in respiratory therapy from the University of Mary in 2015. Given her passion for healthcare, she continued to earn her Master of Science degree in business with a concentration in healthcare, also from the University of Mary. As a respiratory therapist, Megan experienced areas of the adult ICU, NICU, PICU, and long-term acute care. Her love for the long-term acute care hospital setting led her to accept a position as an RT clinical liaison. In this capacity, Megan screened patients for transfer and provided education to patients and their families on the continuum of care. Megan takes great pride in her career as a respiratory therapist and is a strong advocate for continued education. Megan began her dissertation journey in 2019 in University of Mary's Ed.D. program for educational leadership. Megan is currently serving the North Dakota Society for Respiratory Care (NDSRC) as treasurer for the 2018-2020 term. Additionally, Megan has been named president-elect of the NDSRC for the new term beginning in 2020. Megan is a proud member of the University of Mary community, where she can continue to serve the Christian, Catholic and Benedictine Mission.

**Julie Nuss, M.Ed., RRT** is an adjunct instructor for the RRT-BSRT Program. Julie is currently the clinical coordinator for respiratory therapy at CHI St. Alexius Health in Bismarck, ND. Julie graduated from the North Dakota School of Respiratory Care in 1987 and the University of Mary in April 1988 with a BSRT degree. Julie began her career in an acute care hospital working in the NICU, ICU, and regular floor therapy. She was a key player in the team that developed and implemented therapist driven protocols in the facility for which she worked in 1989-1990. Additionally, Julie spent 15 years working for a Durable Medical Equipment company where she grew her passion for patient education. Julie completed her COPD Educator course through the AARC and currently works as an asthma educator at a regional children's asthma clinic. Julie has a real passion for education and has served as a clinical instructor for respiratory therapy students and holds a master's degree in education from the University of Mary. Julie has been an adjunct instructor for the University of Mary's RRT to BSRT online program since 2018. She finds this position keeps her on her toes and keeps her learning!

**Mike Wahl, MSRT, RRT** is an adjunct instructor for the RRT-BSRT Program. In addition to teaching, Mike is the lead ICU Respiratory Therapist at Sanford Health in Bismarck, ND. Mike graduated from the University of Mary/CHI. St. Alexius Health Respiratory Therapy program in 2015 with a Master of Science in respiratory therapy. Mike has a true calling for intensive care; in addition to his duties in the adult ICU, he also works in the NICU, PICU, and neonatal/pediatric transport team. Mike serves his fellow clinicians as an NRP instructor. Mike shares his passion for intensive care with his students as he teaches the Advanced Critical Care course.

**Gretchen Trebas, MSRT, RRT** is an adjunct instructor for the RRT-BSRT program, she is also employed as an RRT at Sanford Health in Bismarck, ND. Gretchen earned her Bachelor of Science degree in exercise science from the University of Mary in 2013. She continued her education in the University of Mary's Master of Science program in respiratory therapy and earned her MSRT in 2015. Gretchen began her career in rural North Dakota, where she wore many hats. A rural community offered experience in a variety of outpatient and in-patient areas, including pediatrics, home care, performing EEGs and stress tests, and patient education and disease management. Upon leaving the rural community, Gretchen spent some time as an RT at a local long-term acute care hospital where she enjoyed learning about trach weaning and rehabilitation. Gretchen currently specializes in tobacco education, where she is a certified tobacco treatment specialist (C-TTS). Additionally, she is a Baby and Me Tobacco Free certified program facilitator, and pulmonary function lab technician. Gretchen expanded her practice by accepting a position with the University of Mary in 2018 as an adjunct instructor for the RRT to BSRT online program.

**2020 BSRT Graduates**

**BSRT Class of 2021**

## Contact Information

**Request Information:** https://www.umary.edu/admissions/

**BSRT Entry-Level Program:** https://www.umary.edu/academics/programs/respiratory-therapy.php

**RRT-BSRT Online Program:** https://online.umary.edu/academics/bachelors-programs/respiratory-therapy-rrt-to-bsrt.php **Send email to Megan Schneider:** mlschneider@umary.edu

**MSRT Entry-Level Program:** https://online.umary.edu/academics/masters-doctoral-programs/respiratory-therapy-ms.php

For more information contact Dr. Chris Sperle: cksperle@umary.edu

# Working Towards the Academic Advancement of the Respiratory Care Profession in New York State

**By Stephen G. Smith, Lisa M. Endee, and Lisa Shultis**

Stephen G. Smith, MPA, RT, RRT, FAARC

Lisa Endee, MPH, RT, RRT, RRT–SDS, RPSGT,

Lisa Shultis, MAEd, RT, RRT


***Co-Chair, Ad Hoc Committee: Stephen G. Smith, MPA, RT, RRT, FAARC***

**Clinical Associate Professor, Respiratory Care Program**
**School of Health Technology and Management, Stony Brook University**
**Past Chair and Extended Member: New York State RT Licensure Board for RT and Polysomnography**
**Executive Board Member and House of Delegate Member to AARC: New York State Society for Respiratory Care (NYSSRC)**

***Co-Chair, Ad Hoc Committee: Lisa Shultis, MAEd, RT, RRT***

**Director of Respiratory Care, School of Health Professions**
**Long Island University**

***Secretary, Ad Hoc Committee: Lisa M. Endee, MPH, RRT-SDS, RPSGT, RST***

**Clinical Associate Professor, Respiratory Care Program**
**School of Health Technology and Management, Stony Brook University**
**Long Island Regional Director: NYSSRC**
**Chair, NYSSRC Education and Research Committee**


With the ever-increasing changes in cardiopulmonary medicine, threatening pandemics, and advancements in both medical technology and pharmaceutical treatments, the academic preparation for future respiratory therapists (RTs) will require advancements in educational and academic development. The demand for decreased lengths-of-stay, outcomes-based reimbursement, and preventative care further emphasize this need. It is the belief of the New York State Society for Respiratory Care (NYSSRC), as well as the American Association for Respiratory Care (AARC), that academic institutions will need to expand program curricula to

better prepare future practitioners for this more skilled role and to ensure the future of respiratory care and RTs. Enhancements to academic preparation will also serve to open up new opportunities for RTs to practice both in the hospital setting as well as in the out-patient arena.

RTs are actively involved in the care of patients with heart disease, cancer, trauma, chronic respiratory disease, stroke, influenza and pneumonia, many of these among the leading causes of death in the United States, according to the Centers for Disease Control and Prevention (CDC). The recent emergence of COVID-19, which has caused serious public health concern and led to the 2020 pandemic,[1] certainly brought attention to the significant role of the respiratory therapist. In an article that appeared in the New York Times on March 11, 2020, titled, "12 Steps to Tackle the Coronavirus," Nicholas Kristof writes about the importance of enhancing telemedicine for treating patients in their home environment.[2] An increase in the academic preparation of RTs could present an important opportunity for them to serve a significant role as physician extenders in providing care to patients in their own environment (home). Further, this could contribute to preventing unnecessary emergency room visits and decrease the burden on our already taxed hospital systems. Telemedicine has expanded exponentially in the wake of the recent pandemic as an important tool in caring for patients in the out-patient arena, especially those patients suffering from chronic illnesses. Healthcare practitioners, such as RTs, have the opportunity to expand their clinical skill set to become a significant asset to the telehealth team.

These changes in our recent healthcare environment seem to demonstrate the need for a more autonomous respiratory therapist with the ability to treat patients with cardiopulmonary pathologies in the home in an effort to reduce hospital admissions or readmissions.[3,4] Respiratory care programs granting baccalaureate degree programs have the ability to provide educational training and experience in more advanced clinical practice, teaching, management, and research compared to those programs conferring an associate degree. Additional academic requirements can provide better clinical preparation, as well as increase their position to receive reimbursement for their clinical services.[5]

To support this position, Keene and colleagues surveyed RTs and respiratory care educators about advanced practice RT programs. The majority of respondents (78%) indicated that they would rather remain in their profession with advanced training and education than move on to a physician assistant program.[6] Becker and Nguyen suggested that patient care may be improved by raising the minimum educational standard of RTs from associate prepared to baccalaureate and beyond.[7] To accomplish this goal, future RTs will need greater preparation to provide advanced patient care and clinical preceptors will need to be better educated for students to be able to put to practice what they have learned in the didactic environment. Specifically, clinical preceptors will be needed in sufficient numbers, with greater academic preparation, to provide the necessary skills and knowledge for students to obtain a quality clinical educational experience.[8]

In a study published in the *Respiratory Care Educational Annual*, by Varekojis and colleagues asked respiratory therapy department directors the importance of moving towards a

bachelor of science degree in RT. Seventy percent (70%) who responded to the survey reported that they would prefer to hire graduates with at least a BS in RT and over 80% would prefer to hire RTs with a BS over the next five years.[9] This is significant data that overwhelmingly supports the need to move towards a bachelor's or higher degree to practice in our profession.

A study by Smith SG and coauthors found that RTs surveyed in New York State (NYS) rated the ability to assess patients and develop a care plan as most important to the future of the respiratory care profession. This was followed by the need for receiving reimbursement for services (See Fig. 1).

In that same study, among participants who would personally consider leaving the profession of respiratory care in the next 5 years, besides those who were planning for retirement, the two most important reasons were reported as a limited ability for growth/limited scope of practice and a lack of confidence in the future of the profession (See Fig. 2).[4]

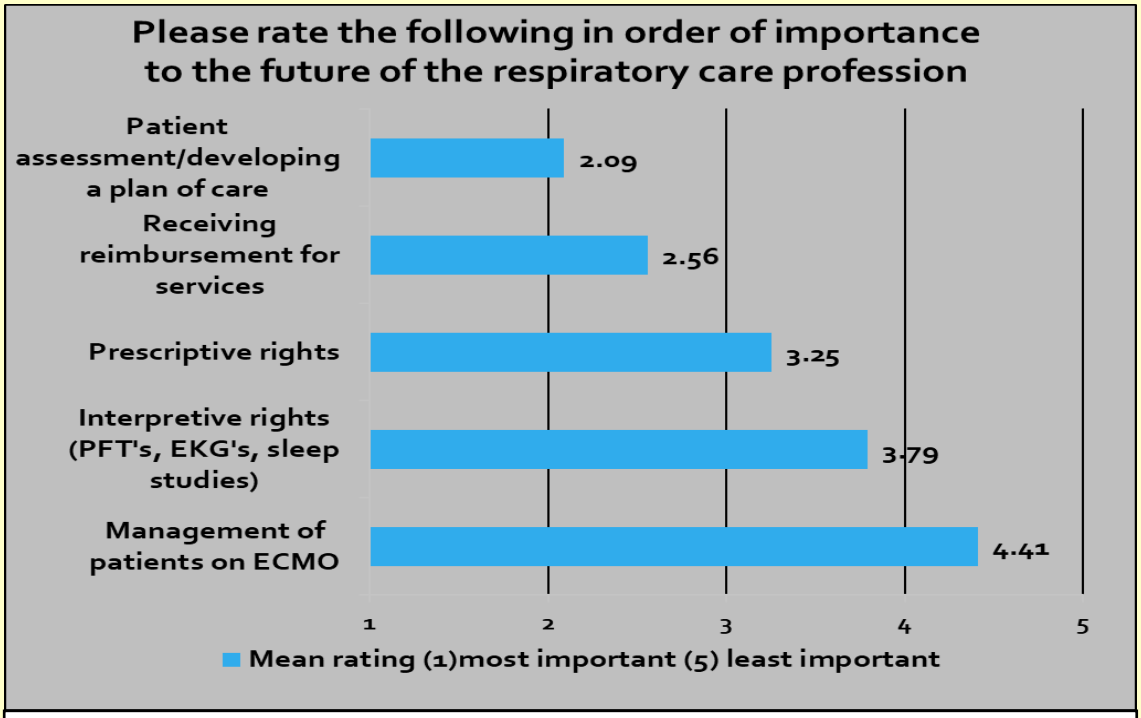



Figure 1 Order of Importance to the Future of Respiratory Care Profession

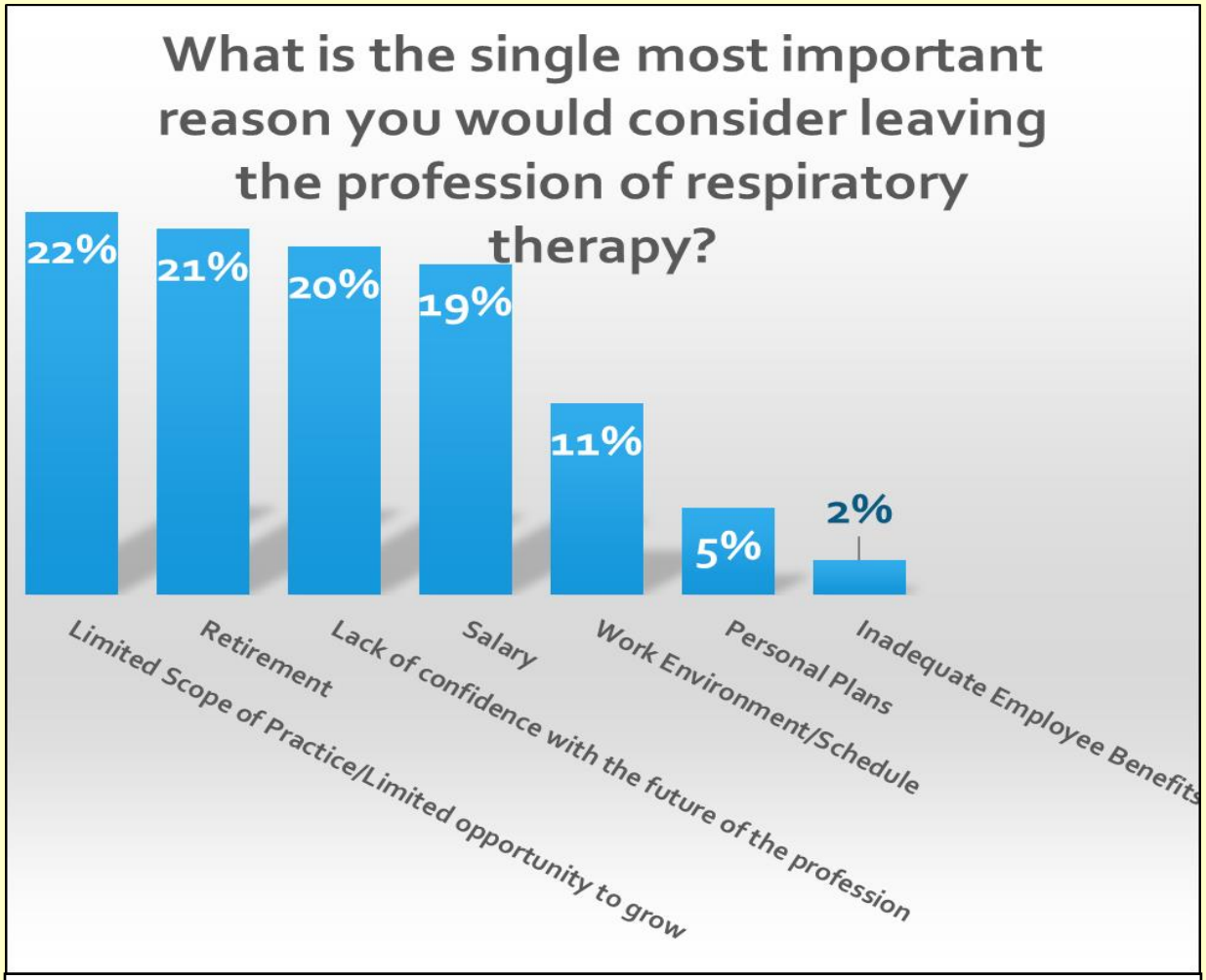



Figure 2

Smith and coauthors identified three main concerns that RTs in NYS reported as instrumental to the sustainability and growth of the profession of respiratory care: 1) obtaining the ability to assess patients and develop a plan of care, 2) receiving reimbursement for services rendered and 3) obtaining the ability to write prescriptions.[4] The perceptions of NYS RTs indicate the need for growth in both academic and clinical preparation to pave the way for important opportunities in clinical care. Many RTs in leadership seem to agree. According to the former AARC past - president, Frank Salvatore, "We need to assure that readmissions for COPD patients are reduced; that all asthma patients have access to their medications; that all pulmonary patients are able to have access to the specialized care delivered by RTs. This includes care beyond the walls of the hospital including telehealth."[10] Similarly, Myers emphasizes that to remain competitive in this new health care environment, RTs must strengthen their position in the treatment of cardiopulmonary diseases by furthering their education.[11]

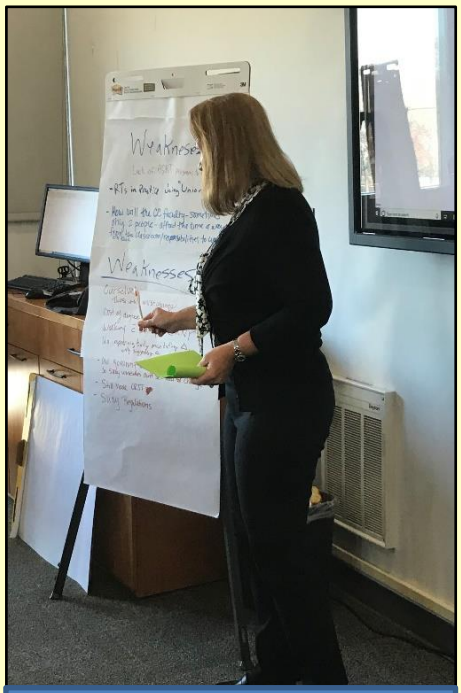
The changes in the healthcare environment and the recent research findings, which suggest support for the advancement of the profession, have prompted much discussion between respiratory therapist organizational leaders. As a result, the New York State Society for Respiratory Care (NYSSRC) decided to hold a Respiratory Care Summit to discuss and brainstorm meaningful changes to the educational preparation and practice of respiratory care in NYS. Josh Escudero, president of the NYSSRC, Chris Slocum, chair of the NYSSRC Government Affairs Committee and a House of Delegate representative, and Stephen G. Smith, chair of the Educational and Research Committee and a House of Delegate representative were charged with pursuing this important professional initiative. In July of 2019, a NYS Respiratory Care Summit invitation was sent to strategic academic program directors, managers, legal counsel and the Executive Director of CoARC. It was explained in the invitation that the summit was to discuss: 1) the paradigm shift taking place in healthcare and in the profession of respiratory care, 2) that a BS in RT is necessary for the profession to have future success and to improve patient care, and to receive reimbursement for services, 3) what role will professional leaders and educators have to improve retention and increase morale among respiratory care practitioners, 4) how will future healthcare models have an impact on the respiratory care profession and 5) will it require a greater academic curriculum to help improve the profession in a positive direction and how will this impact the future clinical role of the RCP. At the request of NYSSRC leaders, Lynda Goodfellow, EdD, RRT, AE-C, FAARC was asked to represent the AARC as the Summit moderator. Dr. Lynda Goodfellow is Associate Professor of RT and Associate Dean for Academic Affairs, Byrdine F. Lewis School of Nursing and Health Professions, Georgia State University. She is an active member of the AARC Board of Directors and has served as chair of the AARC Ad Hoc Committee on AS to BS Conversion.

**NYS Respiratory Care Summit Participants November 2019**

The NYS Respiratory Care Summit was held in November of 2019 at the Borough of Manhattan Community College and was extremely well attended. Vice president of external affairs and president – elect of the AARC, Sheri Tooley, BSRT, RRT, RRT-NPS, AE-C, FAARC, numerous NYSSRC Board members, and twelve of the thirteen NY state educational programs sent representatives to participate in the event.

The discussion at the Summit was quite robust and included discussion how medical technology and clinical care has advanced tremendously, necessitating a more demanding academic preparation. The group talked about the need for the profession to expand its clinical settings to include outpatient care, and the importance of RTs to be reimbursed for the clinical services they provide, particularly in the out-patient arena. Increasing the scope of practice for RTs was a resonating theme and one that was closely linked to the opportunity for growth in the field, a more valued RT as a member of the healthcare team and ensuring a future role for RTs in both the inpatient and outpatient arena. Various opportunities for RTs were identified including expanded roles in: 1) supporting physicians with developing patient care plans; 2) disease management; 3) scope of practice; and 4) prescriptive rights. It was the consensus that every one of these seemed to indicate the need for increasing the academic preparation and educational standard for RTs in NYS.

In the final hours of the Summit, the moderator coordinated a SWOT analysis activity. The primary objective of a SWOT analysis is to assist organizations in strategic planning by Further discussion addressed the expectations of the participants for moving the profession forward. The group deliberated on the possible impact this would have on the profession in NYS. Some concerns included making sure that the pathway did not harm associate degree programs or professional practice. The group's expectations included gaining a better understanding of the barriers that programs would face and the support AS/AAS programs would require. Various strategies were identified including articulation agreements between AS/AAS programs and BS programs. identifying and developing a full awareness of all the factors involved in making a strategic decision. Summit participants broke into groups to analyze the profession's strengths, weaknesses, opportunities and threats. The summary of the findings is outlined below.



Lynda Goodfellow, EdD, RRT, AE-C, FAARC

The participants identified various strengths of the RT profession and leaders within the profession. These included 1) having the skills and being in a position to develop a legal agreement that this is needed for increasing scope of practice, 2) having great experience in promoting opportunities for our practice and profession, 3) having experience in developing best practice for patient care, 4) being in a position to strengthen our excellent respiratory care programs in NYS, 5) support of moving forward to gain recognition from Medicare as a profession and for reimbursement for clinical services.

The participants identified various weaknesses of the RT profession and leaders within the profession. These included: 1) the profession, at times, has difficulty with change, 2) past difficulties in working within the regulations of City University of New York/State University of New York (CUNY/SUNY) system, 3) the fact that previous legislation has not mandated change but only recommended it 4) the statute in NYS governing the practice of RT still having a two tier system (RT and RTT), 5) concern about implementing change within a union environment and 6) limited college faculty to pursue this endeavor.

Opportunities that exist for the RT profession and leaders within the profession were identified as 1) the opportunity for NYS to set the national stage for a BS in RT as an entry to practice, 2) advancement of the profession, 3) retention of RTs, 4) reimbursement for services outside the hospital arena, 5) the opportunity to pave a pathway to an advanced practice degree 6) increased education could potentially lead to increases in salaries, 7) the opportunity to maintaining pace with other allied health professions, 8) an increase in the scope of practice could lead to disease management opportunities, participation in telehealth and telemedicine, and a greater understanding of advanced medical technologies and therapies, and 9) increased employment opportunities.

Threats that exist for the RT profession and leaders within the profession were identified as 1) SUNY/CUNY obstacles and delay with changes, barriers at SUNY schools, 2) a possible short-term harmful reduction in the NY workforce, 3) the potential for other professions to take responsibilities away when there are no RTs available, 4) difficulty in gaining administrative support at community college level to move to BS degree, 5) an “It will never work” attitude, 6) decreased enrollment at community college when students do not have the money or want to spend the time needed for a BS degree, 7) concerns about the increase in college tuition, and 8) decreased income potential for AS graduate (inability to work until BS achieved).

The final session of the summit was spent discussing how to move forward and developing timelines to achieve the goal of moving to an entry level BS in RT. The consensus was for a transitional period of seven years from legislation to enforcement. It was agreed that there was quite a bit of work to be achieved with regard to writing legislation, developing articulation agreements, and addressing numerous barriers for AS programs. To encourage participants to be actively involved in the process, it was agreed that an ad hoc committee be created to address these issues while pursuing this important New York State (NYS) initiative.

The Summit concluded with the establishment of an Ad Hoc Committee for the Academic Advancement of RC in NYS. Co-chairs, Stephen G. Smith, MPA, RT, RRT, FAARC and Lisa Shultis, MAEd., RT, RRT, and a secretary, Lisa M. Endee, MPH, RRT-SDS, RPSGT, RST were appointed to help with moving this initiative forward. Various participants from diverse institutions at the Summit volunteered to serve on the committee. The charge of the committee was as follows: 1) To pursue a BS in RT in seven (7) years. This is understood to mean that once the bill is signed into law that in seven (7) years licensure will require the completion of a Bachelor's Degree in Respiratory Care; and 2) To practice in New York State a respiratory therapist must obtain a license from the New York State Education Department (NYSDOE).

The committee Co-chairs, secretary, president of the association, government affairs representative of the association, and legal counsel for the NYSSRC, held numerous planning meetings in preparation for the first official Ad Hoc Committee meeting. It was decided that the work of the committee would be divided into three sub-committees or task forces. Each task force committee would be charged with a specific responsibility. Task Force Committee #1 would be responsible for writing and developing the bill, Task Force Committee #2 would be

responsible for addressing the barriers and coming up with solutions to those barriers and Task Force Committee # 3 would be responsible for developing pathway agreements among the bachelor and associate degree programs within the state. It was agreed that each task force will report back to the Co-Chairs of the Ad Hoc Committee, who would then report to the board of the NYSSRC.

The first meeting of the NYSSRC Ad Hoc Committee for the Advancement of The Respiratory Care Profession in NYS took place on February 6th, 2020. It was well attended by eighteen representatives including strategic academic program directors, department managers and legal counsel for the NYSSRC. At that time, committee members were asked to volunteer for one of the task force committees and begin the work of that committee under the direction of the facilitator. There was strong support and motivation for the ensuing effort and initiative. However, the work of these committees was quickly put on postponement because of the healthcare crisis that significantly impacted the New York area in early March. As the COVID-19 curve continues to flatten in the northeast, particularly in New York, there is strong motivation to resume efforts. In our next *Coalition Chronicle* article, we will update the reader on the progress of the NYSSRC Ad Hoc Committee for the Advancement of The Respiratory Care Profession in NYS and its Task Force Committees.

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# Interview

**By Jeff Ward, MEd, RRT, FAARC**
**Mayo Clinic Multidisciplinary Medical Simulation Center**
**Rochester, Minnesota**

The following is an interview of Mark Konkle, MPA, RRT; Andrew Weirauch, BS, RRT, RRT-ACCS and Daphne Hawkins, RRT in which coauthors were asked to discuss background details about an article published online in ATS Scholar* titled: *Training and Deployment of Medical Students as Respiratory Therapist Extenders During COVID-19.*
* https://www.atsjournals.org/doi/full/10.34197/ats-scholar.2020-0049PS


Mark Konkle


Andrew Weirauch


Daphne Hawkins


Jeff Ward

1. **Could you review the decision-making process for the use of medical students as RT extenders (RTEs)?**

   Early in the COVID-19 pandemic, leaders involved with University of Michigan Medical Center-Michigan Medicine appreciated that the number of respiratory care practitioners (RCPs) would potentially be limited relative to the volume of care to provide; there would be a need to increase therapist-to-patient ratios. Like many hospitals, the departmental emergency staffing procedure policy outlined job roles that would be capable of performing respiratory care duties with minimal training. This group included licensed providers (MD, CRNA, or PA) for mechanical ventilation, nursing for inhaled medication treatments and oxygen, and medical and respiratory care students for basic respiratory care services and support. We worked with our medical director to assess the appropriateness of training for the medical students and how best they might be utilized.

2. **What method was used to identify and select medical students for the volunteer role?**

   Medical students had the opportunity to volunteer in many different capacities across the University of Michigan system. Third (M3) and fourth (M4) year medical students were

identified as possibly being capable of higher levels of patient interaction as they have been exposed to patient care and have had the opportunity to interview and assess patients. The group of medical students we worked with were strictly volunteers. They first completed an online module covering a wide variety of respiratory related topics. Then, if interested, they completed in-person training to review the functions they would be taking on. Although Michigan Medicine developed the modular training sessions and did some in-house training, we did not actually deploy any of the medical students, because other parallel efforts addressed our immediate personnel needs. Some of the medical students who received in-house training were deployed at the Ann Arbor Veteran's Affairs Hospital.

3. **What were the range of responsibilities for RTEs related to patients on ventilators?**

   While the executive order from Michigan's governor approved medical students to interact with ventilated patients, the training and the identified scope of practice for medical students did not include ventilator care at either Michigan Medicine or the Veterans Administration (VA) Medical Center. Other advanced caregivers are identified for such services, if required.

4. **How well did third- and fourth-year medical students assimilate the information provided to them before assuming the RTE role?**

   The M3 and M4 medical students lacked the basic technical skills to perform many patient care activities of a RCP. They were trained at the VA for a limited scope of activities such as oxygen therapy, incentive spirometry, metered-dose inhaler (MDI) administration, and the documentation surrounding this care. The patient evaluation was a key component. If it was determined that a patient required more aggressive or different therapy, the RTE was to contact their supervising RCP immediately. RTEs were also trained for supportive activities like oxygen tank management, equipment processing, and RT supply cart stocking. A major role they played at the VA Hospital was to help free up the RCPs so they could manage more critically ill patients. The medical students were very helpful in delivering needed equipment and supplies to RTs and preparing equipment for use. This allowed the therapists to remain at the bedside or ICU and focus on the critically ill COVID ICU patients. The medical students performed well in this supportive role.

5. **How often did RTEs take care of COVID-19 patients versus other patients receiving mechanical ventilation?**

   The RTEs were not used to provide direct care for patients receiving mechanical ventilation at Michigan Medicine or the Ann Arbor VA Medical Center.

6. **How many COVID-19 patients would typically be assigned to an RCP staff or RTE?)**

   At the Ann Arbor VA Medical Center, ICU-based RCPs were assigned a 1:5 ratio, one therapist for every 5 COVID ICU ventilator patients. RTE was assigned to report to the therapist assigned to the patient or area to make sure the therapist had quick availability to their supplies and equipment to manage their patients.

7. **How was staffing organized in regard to ratios of RCP to RTE? Did the ratio change on night and weekend shifts?**

   We staffed the medical students in 6-hour shifts (24/7) and we always maintained 2 RTEs per 6-hour shifts for 8 AM to 2 PM and 2 PM to 8 PM.

8. **Could you characterize the reactions of the medical students as to their experience as RTE extenders?**

   Michigan Medicine: In terms of the training, they were very excited to assist in care and appreciative for the opportunity to learn things in a discipline that they otherwise would not have an opportunity to do so.

   VA: They appeared to gain a better understanding of what RT's do and how we do it. They appeared to gain a better appreciation of the extent of a therapist's education and knowledge base for treating patient with respiratory diseases/conditions and how this process might ultimately end up effecting the patients entire physiologic state.

9. **Did the RTEs report to critical care nurses or physicians when RCPs were not available?**

   Michigan Medicine: Had they been deployed; these students would have worked directly under a licensed respiratory therapist who would coordinate and oversee their work and intervene when a higher set of clinical skills were needed. VA: The RTE's reported directly to a licensed respiratory therapist who was always available.

**10. What were the advantages and disadvantages of using medical students as RTEs as perceived by: RTs, RNs or MDs?**

Advantage: The main advantage of using the medical students was that they helped to maximize the workflow for busy respiratory therapists. Physicians and nurses were appreciative that therapists were available for their critically ill patients.

Disadvantage: Because of the highly technical skills required of a respiratory therapist and the relatively short time period in which we needed to deploy our group of medical students, it was not practical to utilize them for many technical skills.

The shortage of critical care respiratory therapists and the need for them on a clinical and administrative professional level was clearly identified during the COVID-19 pandemic. The experience reinforced the concept about the value of a healthcare team. Each member brings something different to the team to allow for a more comprehensive care. There may be a misconception that others can do the respiratory therapist's job. The COVID -19 pandemic underscored the unique skillsets of respiratory therapists. We feel the Adult Critical Care Specialist (ACCS) credential should be a requirement and expectation in every respiratory care department that provides adult critical care.

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