CoBGRTE White Paper on Accreditation

Introduction

Respiratory care educational programs seek to prepare competent respiratory therapists for practice across multiple health care settings. Programs are offered at technical and community colleges, four-year colleges and universities. Currently, the minimum degree required to become a respiratory therapist is the associate degree. In 2014 there were approximately 381 associate, 64 baccalaureate and 8 graduate level degree programs in the United States.[1, 2] This paper examines the current educational system and suggests future directions for the profession and for professional education. The purposes of this paper, prepared by the Coalition for Baccalaureate and Graduate Respiratory Therapy Education (CoBGRTE) Task Force on Accreditation (See Appendix A), are to review the history and development of respiratory care education, describe future directions for the profession, review the needs of the profession with respect to education, credentialing and educational program accreditation, and to make specific recommendations.

Specialized Accreditation

Quality assurance and quality improvement are the chief goals of respiratory care educational program accreditation. Educational program accreditation is a private (nongovernmental) and nonprofit enterprise— an outgrowth of the higher education community. It is funded primarily by the institutions and programs that are accredited. It adds value to society, not only by assuring quality, but also by enabling governmental entities to make sound judgments about the use of public funds, and by aiding the private sector in decisions about financial support and the transfer of academic credit.[3]

The purpose of respiratory care educational program accreditation is to ensure that graduates entering clinical practice possess the competencies described by accreditation agency standards, the National Board for Respiratory Care (NBRC) competency examinations (e.g., NBRC examination detailed content outlines) and the competencies identified by the American Association for Respiratory Care (AARC) in the second AARC 2015 conference.[4]

Currently, respiratory care educational programs in the U.S. are accredited by the Commission on Accreditation for Respiratory Care (CoARC). CoARC is a member of the Association for Specialized and Professional Accreditors (ASPA) and is recognized by the Council for Higher Education Accreditation (CHEA). CHEA is a national, nongovernmental, not-for-profit educational organization that coordinates accreditation activities for post-secondary educational institutions in the U.S.[5]

CoARC accredits respiratory care educational programs to prepare graduates at a competency level consistent with NBRC credentialing as registered respiratory therapists (RRTs).[6] Accredited programs may award the associate, baccalaureate or master's degree. Graduates are eligible to sit for the NBRC entry-level certification examination to become certified respiratory therapists (CRT) which is required for state licensure in most states in the U.S. with New York, Ohio and California requiring the RRT credential for licensure as a respiratory therapist. Recently, the NBRC has "combined" the content for the CRT and RRT written examinations

into a single "Therapist Multiple-Choice Examination" which has different cut scores for the CRT and RRT credentials.

Specialized accreditation commissions are comprised of volunteer commissioners. In the profession of respiratory care, commissioners should be guided by a clear vision of the expanding responsibilities and roles of respiratory therapists. Accreditation standards must allow programs to document student achievement of required competencies before graduation. For example, the medical profession requires senior medical students to successfully complete two of three board exams, the USMLE – Step 1 and USMLE - Step 2, in order to progress to graduation. Medical students must pass these board exams to continue in the curriculum toward degree completion; access to the exams is tied to completion of specific course work. Respiratory care educators have a similar need to document student competency before graduation; patient safety is at stake, a concern that accrediting and credentialing agencies must address. Current accreditation standards require all educational programs to prepare students to possess the competencies tested by the RRT examinations. In order for programs to assess achievement of these outcomes, students should be able to sit for the examinations shortly before graduation regardless of the degree awarded.

Accreditation is a peer-review process. Thus, accreditation commissioners, referees and site visitors must have educational and experiential backgrounds similar to (or greater than) the faculty and key personnel of the programs under review ((http://www.coarc.com/8.html, Accessed November 10, 2014). In addition, accreditation decisions must be made by a commission comprised of educators who are currently respiratory care faculty members of programs offering curricula similar to the ones under review. Respiratory care program specialized accreditation should also seek to ensure programs meet the educational degree requirements dictated by current clinical practice needs and national standards of practice. It is difficult, if not impossible to deliver these educational competencies within the confines of a traditional 60 semester credit associate degree program. All new entry-level respiratory care educational programs should be at the baccalaureate or master's degree level, consistent with the recommendations of the RT 2015 and Beyond conferences.[7] The accrediting agency should take steps to prohibit the establishment of new associate degree programs. Moreover, the agency should prohibit the establishment of new respiratory care programs in areas where the need for graduate respiratory therapists is already met by existing programs.

Respiratory care has fallen behind other similar health professions in the educational preparation it provides to students (See Appendix B).[1] Accreditation standards and the cost structure of accreditation need to be evaluated in light of the need for more programs at the baccalaureate and graduate levels. Accreditation should ensure that the education of respiratory therapists will meet the needs identified by the three AARC 2015 conferences (See Appendix C).[4, 7-10]

Previous White Papers and Position Statements

In 2003 the NBRC, CoARC and the AARC published a significant document regarding respiratory care education and credentialing.[11] The "Tripartite Statements of Support" for the continuing advancement of the profession put forward several key principles. First, that the registry credential (RRT) is the standard of excellence for respiratory care and all respiratory

therapists should seek and obtain this credential. Second, the continuing development of baccalaureate and graduate education in respiratory care is supported and respiratory therapists are encouraged to pursue advanced levels of education. Third, employers should develop career ladders and pay differentials that reward advanced credentials and education. The statement also provides strong support from the three agencies for the current credentialing system, based on continuing job analysis research, as well as articulating the continuing need for student recruitment and faculty development.

Also published in 2003 was the AARC White Paper on the Development of Baccalaureate and Graduate Degrees in Respiratory Care.[12] The white paper noted that producing new therapists with the knowledge and skills needed for the 21st century has become increasingly difficult within the confines of a two-year program. In addition, without a baccalaureate or higher degree, respiratory therapists are often not recognized as professionals by government agencies, third party payers, the uniformed services, labor unions, and others.[13] While the curricular needs to produce a competent therapist continue to grow, some state governments have limited associate degree credit hours in community colleges to as little as 60 semester hours. The AARC White Paper concludes that "there is a need to increase the number of respiratory therapists with advanced levels of training and education to meet the demands of providing services requiring complex cognitive abilities and patient management skills. Therefore, the AARC strongly encourages the continuing development of baccalaureate and graduate education in respiratory care, to include:

- *Traditional BS degree programs*
- *Associate degree to baccalaureate degree articulation and bridge agreements with area community colleges*
- *Distance education for BS degree programs offered at the community college level*
- *Promotion of Master of Science in Respiratory Care degree programs for the development of leadership in the areas of management, education, research, and clinical specialization."*

In 2009, the AARC published the first of three reports on the AARC 2015 conferences on the future direction of the profession. The first report addressed the following areas:[8]

- *What will the future health care system look like?*
- *What will be the roles and responsibilities of RTs in the future system?*

The AARC Board of Directors (BOD) accepted the direction for the future of health care and RTs roles and responsibilities as recommended in this report in April of 2012. The second report was published in 2010 addressed the competencies needed by respiratory therapists (See Appendix C).[4] The AARC BOD accepted the competencies as recommended in July of 2012. The third report, published in 2011, addressed the mechanisms by which the respiratory care workforce would acquire these needed competencies.[7] Among other steps, this report recommended that entry level respiratory care education be (at a minimum) at the baccalaureate level and the RRT credential be the entry level credential by the year 2020.

More recently, some state boards of respiratory care (e.g. Ohio, New York, and California) require the RRT credential for entry into the practice of respiratory care. Discussion has also begun and efforts made to identify the competencies needed by an advanced practice respiratory therapist (APRT) to function as a mid-level provider (i.e. physician extender).

Educational Requirements in Other Health Professions

Many allied health professions have reacted to changes in the health care environment over the last 20 years by increasing the levels of education required for entry to practice (See Appendix B). Speech therapists have long required graduate education, usually requiring a master's degree. Physical therapy and occupational therapy have moved from a minimum of a bachelor's degree to the master's degree as entry level and most PT programs have moved to the doctoral degree (DPT).[14] Physician assistant programs are in the process of converting all PA programs to a master's degree for entry into the profession. Audiology now also requires the doctoral degree (AuD), as does pharmacy (PharmD) and many advanced practice nursing programs now award the doctor of nursing practice (DNP). Respiratory therapists are the only "therapists" requiring only the associate degree for entry to practice. Table 1 outlines the education requirements for other allied health professions.

Table 1. History of Baccalaureate and Graduate Program Development in the Health Professions

Profession	Certificate	AS Degree	BS Degree	Master's Degree	Clinical Doctorate
Pharmacy	--		BSPharm (4 year - 1932) (5 year - 1960)		PharmD (1997)
Physician Assistant	Military Certification (1965)	--	BS PA (1967)	PA (require MS by 2020)	--
Occupational Therapy	--		BS OT (1963)	MOT (2007)	OTD (2025)*
Physical Therapy	1928		BS PT (1978)	MPT (2001)	DPT (req 2015)
Audiology	--		BS Au (1947)	MS (1965)	AuD (1997)
Medical Laboratory Science			BS MLS (1965)	--	DCLS (2011)
Radiography	1922	AS RT required 1/1/15	BS (1981)	RA (2005)**	--
Radiation Therapy	1969	AS RT required 1/1/15	BS (1968)		N/A
Diagnostic Medical Sonography	1981	AS RT required 1/1/15	BS (1981)		
Nuclear Medicine	1969		BS NMT (1977)	MS-NMT (2015-2016) Proposed***	--
Respiratory Therapy****	1962	AS required (2000)	BSRT (1970)	MS RT (2005) APRT (TBD)	--

*This is the target date set by the AOTA Board of Directors 4/30/2014 but is not mandated yet for entry level for all programs AS required (2000).

**RPA –precursor to the RA was started at Weber State in 1993 with funding from the DOD.

***This may be discontinued as the report at the last Summit was that none of the pilot grads could find jobs.

****Entry remains the associate degree; the first entry-level baccalaureate and master's degree programs were initiated in 1970 and 2005, respectively.

As illustrated in Table 1, baccalaureate and graduate degrees in the other health professions have evolved at a much more rapid pace than respiratory care. Respiratory therapy remains one of the few health professions in which entry to practice is offered at the associate's degree level. The associate's degree has been required for practice in RT since 2000.[15]

Development of Collegiate Level Nursing Accreditation

The accreditation and professional Respiratory Therapy issues are similar to those in other professions such as nursing. In fall of 1996, the American Association of Colleges of Nursing (AACN), a professional organization promoting advanced nursing education, approved a new accrediting body focused solely on baccalaureate and graduate nursing programs.[16] This new accrediting body, the Commission on Collegiate Nursing Education (CCNE), emphasized the need for more efficient accreditation processes for baccalaureate and graduate nursing education while focusing on learning outcomes relevant to these programs. To encourage institutions to move to CCNE accreditation, programs previously accredited by the National League for Nursing (NLN) were granted a preliminary review with up to 10 years of CCNE accreditation.[16] Moving to CCNE accreditation was not without challenges for the programs and profession. Some state licensure boards as well as the military specifically mentioned NLN as the only approved accreditation agency for nursing, which jeopardized federal student funding for those programs switching to CCNE accreditation. Over time, and once approved by the United States Department of Education, CCNE was recognized as an acceptable accreditation agency at the state and national levels. Since its development, CCNE continues to be "mission-driven, values-based, and responsive to its constituencies" while "ensuring fairness, demonstrating consistency in actions, and fostering trust in the process."[16] During the first 10 years of existence, more than three-fourths of baccalaureate and graduate nursing programs have chosen CCNE as their accrediting body.[16]

BSN to Entry level MSN Degree

The initial movement of nursing education toward the BSN degree began in 1917 at Teachers College, Columbia University and by the 1930s, student enrollment in similar "collegiate curricula" had doubled.[17] The Brown Report, prepared in 1948 for the National Nursing Council, stated nursing education belonged in institutions of higher education with an integrated curriculum and that these particular nurses represented individuals "prepared for complex clinical situations requiring high levels of education and skill."[18] In 1965, the American Nurses Association position paper called for baccalaureate to be the entry-level degree for nursing and in 2011 the New York State Nurses Association introduced a bill that would require registered professional nurses to complete a baccalaureate degree in nursing within 10 years of their initial

license.[19] Entry level Master of Science in Nursing, also known as Direct Entry MSN, Generalist Entry Masters (GEM) or Accelerated MSN programs, offers a direct route to graduate nursing studies for those holding a non-nursing bachelor's degree. These programs take two or three years to complete. Some of these programs are designed so that the first-year of studies prepares students to rise to the BSN level of knowledge and sit for the NCLEX board exam before continuing graduate studies.[20] Other programs provide the competencies needed to function as an RN (with an emphasis on critical thinking and clinical problem solving) over a two-year curriculum.

Advanced Practice Nursing (APN) to Doctor of Nursing Science (DSN, DNS, DNSc)

The advanced practice nurse with either a master's degree or a doctorate in nursing (DNP – see below) may become a board certified Advanced Practice Nurse (APN) in several areas. The Certified Nurse Practitioner (CNP) provides a full scope of primary care with an emphasis on prevention, wellness, and patient education with the ability to diagnose and treat with prescriptive permission. The Certified Nurse Midwife (CNM) provides care for women from gynecological services to family planning including care of women during and after pregnancy, delivering babies in a variety of venues, and providing newborn care. The Certified Registered Nurse Anesthetist (CRNA) provides anesthesia and pain management to patients undergoing surgery and other procedures, also providing airway management and critical care emergency care. The Clinical Nurse Specialist (CNS) has a specialist focus on diagnosing and treating illnesses through prescribing medication in hospitals, clinics, offices, and outpatient venues.[21]

The Doctor of Science in Nursing (DSN, DNS, DNSc) degree is an academic doctorate degree similar to the Doctor of Philosophy (PhD) in nursing. The DSN is distinguished from clinical doctorate degrees in that individuals with the DSN degree fill most academic faculty positions in nursing. Although the DSN is recognized by the National Science Foundation and the United States Department of Education as the equivalent of a Ph.D. in nursing, most colleges and universities are discontinuing the DNS degree in favor of the Doctor of Philosophy (PhD) in nursing degree.[22]

Doctor of Nursing Practice (DNP)

The Doctor of Nursing Practice is a clinical practice doctorate with a focus on patient care. The specialized certifications formerly associated with the APN taught at the master's degree level are now transitioning to the clinical doctorate level through the DNP program. The DNP concentrates on direct patient care in diagnostics and prescriptive treatment and the American Association of Colleges of Nursing has recommended the DNP as the standard of academic preparation for all advanced practice certifications by the year 2015.[23] Over the past 15 years, nursing has advanced their education from the two-year associate's degree to offering the PhD and DNP. This, in part, was facilitated by their move to an accreditation agency which focused on the needs of baccalaureate and graduate educational programs.

Future Directions

The demand for respiratory care will increase because of increases in the population, aging of the population, and increases in asthma, COPD and other respiratory diseases. Concurrent with this increase in demand will be continuing pressure to control costs. Respiratory care will continue to be performed using protocols and care plans to insure optimum care and reduce misallocation. The respiratory therapist must be able to provide evidence-based care to assess and treat patients and there will be an increase in demand for highly trained and educated respiratory therapists to provide that care. The numbers of baccalaureate and graduate level respiratory care educational programs will need to increase significantly in order to meet these needs; programmatic accreditation is integral to ensuring continued development of high quality, advanced level programs.

Entry level respiratory therapist educational programs should award, as a minimum, the bachelor's degree in respiratory care and entry level master's degree programs should be strongly encouraged. As a matter of professional credibility, the master's degree should become the standard for entry in the profession in the near future and professional doctoral degrees should be considered for advanced practice, as is the case in other allied health professions and in nursing.

The respiratory therapist of the future should be a mid-level provider able to function as a physician extender. Competencies required of the respiratory therapist will include the ability to perform complete patient assessments (e.g. history, physical exam, order/review diagnostic and imaging studies), develop and implement respiratory care plans and modify care based on patient response. Therapists will need to order, perform, and evaluate respiratory care procedures and therapies, manage mechanical ventilatory support, and manage patients with specific medical, surgical and cardiopulmonary conditions, including performance of special procedures. The respiratory therapist must have excellent critical thinking and problem solving skills and must be able to interpret data, determine when additional information is required, obtain and evaluate that information and evaluate the care delivered. The respiratory therapist must have excellent communication skills to (1) effectively interact with physicians, nurses and other health care professionals, and (2) educate patients and their families in chronic disease management, health promotion, and disease prevention.

Recommendations

1. Competency Assessment Prior to Graduation (e.g., CoARC Policy 13)

Baccalaureate and graduate degree respiratory therapy programs require an accreditation policy that allows students to take NBRC CRT and RRT examinations before graduation. Since 2003 CoARC Policy 13 has allowed BSRT/MSRT programs to assess student progression in the curriculum, verify student learning outcomes, provide remediation (as needed) and ensure that students are competent to practice upon graduation. The NBRC and the CoARC plan to eliminate Policy 13 on 12/31/15.[24] The elimination of Policy 13 will result in a significant loss of the respiratory therapy program's ability to assess achievement of RRT competencies and make student remediation difficult, if not impossible. Further, employers expect graduate therapists to

achieve higher levels of education and training to respond to demands projected by the "2015 and Beyond" task force conferences (See Appendix C).[4, 7, 8]

2. Entry-Level Respiratory Care Education

The competencies expected of entry-level respiratory therapists require the length of the respiratory care educational program to be at least four years, with the award of, at minimum the bachelor's degree in respiratory care (or an equivalent degree title). Respiratory care educational programs should, as a minimum, require approximately 60 semester credits (or the equivalent) of lower division general education and science course work and at least 60 semester credits of upper division course work in the discipline, or closely related areas. It is further recommended that master's degree programs be developed in respiratory care (or equivalent degree title); matriculates into master's entry level programs should have at minimum a generic bachelor's degree with successful completion of requisite general education, science and mathematics course work prior to beginning the respiratory care educational program. The discipline-specific content associated competencies (See Appendix C) for entry into practice require program length to be extended well beyond the associate degree and would best be provided at the graduate (i.e. master's) degree level.

In addition, respiratory therapy as a potential career choice for young people and adults will be more attractive if minimum education standards are set at least at the baccalaureate graduate level as recommended by the AARC and CoBGRTE.[12, 25] Baccalaureate and graduate degree entry-level RT education positively affects public perception of the profession, suggesting a more professional and less technical career. Governmental agencies, legislators, third-party payers, and the military services all use the baccalaureate degree as the minimum education level that differentiates professions from technical occupations.[13, 26]

One of the defining features of a profession is the publication of scientific research by its practitioners. The AS degree level of education cannot adequately prepare students to engage in research and publication; this is evident in the lack of therapist authors in the profession's peer-reviewed scientific journal, *Respiratory Care*. The preparation of graduates at the baccalaureate and graduate levels will encourage more practice-applicable research conducted by respiratory therapists.

3. Moratorium on Associate Degree Respiratory Care Educational Programs

The CoARC should place an immediate moratorium on the accreditation of associate degree respiratory care educational programs as recommended by the AARC and CoBGRTE. All new entry-level respiratory care educational programs must award the bachelors or master's degree in respiratory care (or equivalent degree title).

4. Accreditation Commission Composition

To meet peer-review qualifications, the professional association representatives (i.e., AARC representatives) to the accreditation commission (See Appendix C) should be individuals with direct and significant teaching experience in baccalaureate or graduate respiratory care

educational programs, i.e., program directors, directors of clinical education, medical directors and faculty members. In 2014 only three met this criterion and only one of the seven AARC representatives to CoARC has teaching experience in a baccalaureate or graduate respiratory care program (http://www.coarc.com/8.html, Accessed November 10, 2014).

5. Standards for Advanced Practice

The CoARC should continue its efforts to develop standards for mid-level advanced practice in respiratory care (APRT). Programs offering advanced practice training and education should award the master's or doctoral degree (e.g., professional doctorate).

6. Outcome Standards for RRT Pass Rates

CoARC standards mandate that all programs must prepare graduates to demonstrate the competencies performed by RRTs upon graduation. Nevertheless, CoARC does not mandate an outcome standard for RRT credentialing success; instead, it mandates an outcome standard for CRT credentialing success. This incongruity is an accommodation of the NBRC's continued adherence to the outdated two-level CRT-RRT credentialing model. The paradoxical nature of this outcome standard is illustrated by the fact that a program could fail altogether to produce RRT-credentialed therapists — an apparent failure to meet the most foundational CoARC accreditation standard (standard 3.01) "To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by **registered respiratory therapists (RRTs)**," — and experience no accreditation repercussions. The CoARC should immediately correct this contradiction by assuming a stronger leadership role in Tripartite to bring about the necessary reform in the credentialing system to align it with the CoARC standards.

7. Accreditation Agency Formation

Historically and currently, the vast majority of respiratory therapy educational programs have been and continue to be at the associate degree level (381 of 453 in 2014, or 84%); this helps explain why the CoARC is predominantly responsive to the associate degree educational community, and less so to the baccalaureate and graduate degree community. This disparity is reflected in both the composition of the CoARC board and CoARC's assignment of accreditation site visitors (See Appendix C). The CoARC's support of baccalaureate entry level education is tempered by its dependence on its associate degree program clientele, a situation that is unlikely to change soon. The further development of baccalaureate and graduate respiratory care education will depend on the development of a new accreditation agency that can advance respiratory care education in a manner consistent with current and future needs of the profession. This agency would accredit only baccalaureate and graduate degree respiratory care educational programs.

Summary and Conclusions

Respiratory care is at a crossroads. Respiratory therapists can choose to continue to develop as a profession by advancing the education and credentialing required for entry into practice and for

advanced practice. The respiratory therapist of the future must focus on patient assessment, care plan development, protocol administration, chronic disease management and rehabilitation, and patient education, to include tobacco control and tobacco cessation. This advanced level professional will continue to assume an essential role as a team member in the intensive and acute care settings, applying sophisticated cardiopulmonary technologies, additionally serving in clinics, physician offices, home care, long term and rehabilitation facilities, industry and educational institutions. In order to realize this potential as a profession the numbers of baccalaureate and graduate degree programs must increase, and the numbers of respiratory therapists with advanced degrees must increase, including master's and appropriate doctoral degrees. Professional associations and accrediting agencies should promote the development of additional baccalaureate and master's degree programs in respiratory care, which will require the development of a new accreditation system that encourages the development of these programs and the enhancement of all existing baccalaureate and graduate programs.

APPENDIX A

CoBGRTE Task Force on Accreditation

Thomas A. Barnes, EdD, RRT, FAARC – Co-Chair

David Shelledy, PhD, RRT, FAARC – Co-Chair (ASAHP Representative)

Will Beachey, PhD, RRT, FAARC

Erna Boone, Dr.PH, RRT, FAARC

J.M. Cairo, PhD, RRT (ASAHP Representative)

Joseph P. Coyle, M.D.

Paul Eberle, PhD, RRT

Douglas S. Gardenhire, EdD, RRT-NPS, FAARC

Christy J. Kane, PhD, RRT-NPS

Gregg Marshall, PhD, RRT, RPSGT

Jon O. Nilsestuen, PhD, RRT, FAARC

Timothy Op't Holt, EdD, RRT, AE-C, FAARC

Georgianna Sergakis, PhD, RRT

Jonathan B. Waugh, PhD, RRT, RPFT, FAARC

John Zamjahn, PhD, RRT

APPENDIX B

Table B-1. Allied Health Occupations Infrastructure and Required Educational Level (See pages: 11-13)

Allied Health Occupation	Educational Program's Accrediting Organization(s)	Accrediting Organization(s) Website	Accredited Associate Degree Programs	Accredited Baccalaureate Degree Programs	Accredited Post-baccalaureate Degree Programs	Required Self-study	Required Site Visit	Required Annual Report	Required Thresholds Outcomes Reporting
Anesthesiologist Assistant	CAAHEP	www.caahep.org	No	Yes	Yes (M)	Yes	Yes	Yes	Yes
Athletic Training	CAATE	www.caate.net	No	Yes	Yes (M)	Yes	Yes	Yes	Yes
Audiology	ASHA-CAA	www.asha.org	No	No	Yes (D)	Yes	Yes	Yes	Yes
Cardiovascular Technology	CAAHEP	www.caahep.org	Yes	Yes	No	Yes	Yes	Yes	Yes
Clinical Laboratory Scientist	NAACLS	www.naacls.org	Yes	Yes	Yes (M, D)	Yes	Yes	Yes	Yes
Cytotechnology	CAAHEP	www.caahep.org	No	Yes	Yes (M)	Yes	Yes	Yes	Yes
Dental Hygiene	CODA	www.ada.org/en/coda	Yes	Yes	No	Yes	Yes	Yes	Yes
Diagnostic Medical Sonographer	CAAHEP	www.caahep.org	Yes	Yes	No	Yes	Yes	Yes	Yes
Dietetics	ACEND	www.eatright.org/ACEND	Yes	Yes	Yes (M)	Yes	Yes	Yes	Yes
Emergency Medical Technician/Paramedic	CAAHEP	www.caahep.org	Yes	Yes	No	Yes	Yes	Yes	Yes
Exercise Physiology	CAAHEP	www.caahep.org	No	No	Yes (M)	Yes	Yes	Yes	Yes
Exercise Science	CAAHEP	www.caahep.org	No	Yes	Yes (M)	Yes	Yes	Yes	Yes
Genetic Counselor	ACGC	www.gceducation.org	No	Yes	Yes (M)	Yes	Yes	Yes	Yes
Health Administration	CAHME	www.cahme.org	No	No	Yes (M)	Yes	Yes	Yes	Yes
Health Information Management	CAHIIM	www.cahiim.org	Yes	Yes	Yes (M)	Yes	Yes	Yes	Yes
Kinesiology	CAAHEP	www.caahep.org	No	Yes	No	Yes	Yes	Yes	Yes
Medical Dosimeter	JRCERT	www.jrcert.org	No	Yes	Yes (M)	Yes	Yes	Yes	Yes
Medical Illustration	CAAHEP	www.caahep.org	No	No	Yes (M)	Yes	Yes	Yes	Yes
Nuclear Medicine Advanced Associate	None	----------	No	No	§ No (M)	NA	NA	NA	NA
Nuclear Medical Technology	JRCNMT	www.jrcnmt.org	Yes	Yes	No	Yes	Yes	Yes	Yes
Occupational Therapy	ACOTE	www.aota.org	No	No	Yes (M, D)	Yes	Yes	Yes	Yes
Orthotist/Prosthetist	CAAHEP	www.caahep.org	No	No	Yes (M)	Yes	Yes	Yes	Yes
Pathologist's Assistant	NAACLS	www.naacls.org	No	No	Yes (M)	Yes	Yes	Yes	Yes
Perfusion	CAAHEP	www.caahep.org	No	Yes	Yes (M)	Yes	Yes	Yes	Yes
Pharmacists	ACPE	www.acpe-accredit.org	No	No	Yes (D)	Yes	Yes	Yes	Yes

Allied Health Occupation	Educational Program's Accrediting Organization(s)	Accrediting Organization(s) Website	Accredited Associate Degree Programs	Accredited Baccalaureate Degree Programs	Accredited Post-baccalaureate Degree Programs	Required Self-study	Required Site Visit	Required Annual Report	Required Thresholds Outcomes Reporting
Physical Therapy	CAPTE	www.capteonline.org	No	No	Yes (D)	Yes	Yes	Yes	Yes
Physician Assistant	ARC-PA	www.arc-pa.org	No	Yes	Yes (M, D)	Yes	Yes	Yes	Yes
Radiation Therapy Technology	JRCERT	www.jrcert.org	Yes	Yes	No	Yes	Yes	Yes	Yes
Radiologic Technologist	JRCERT	www.jrcert.org	Yes	Yes	No	Yes	Yes	Yes	Yes
Radiologist Assistant	§ JCERT	www.jrcert.org	§ No	§ No	No	NA	NA	NA	NA
Recreational Therapy	CAAHEP	www.caahep.org	No	Yes	Yes (M)	Yes	Yes	Yes	Yes
Rehabilitation Counseling	CACREP CORE	www.cacrep.org www.core-rehab.org/	No No	No Yes	Yes (M) Yes (M)	Yes Yes	Yes Yes	Yes Yes	Yes Yes
Respiratory Therapy	COARC	www.coarc.org	Yes	Yes	Yes (M)	Yes	Yes	Yes	Yes
Specialist Blood Bank Technology/ Transfusion Medicine	CAAHEP	www.caahep.org	No	No	Yes (M)	Yes	Yes	Yes	Yes
Speech-Language Pathology	CAA-ASHA	www.asha.org	No	No	Yes (M)	Yes	Yes	Yes	Yes
Surgical Assisting	CAAHEP	www.caahep.org	Yes	No	Yes (M)	Yes	Yes	Yes	Yes
Surgical Technology	CAAHEP	www.caahep.org	Yes	Yes	Yes (M)	Yes	Yes	Yes	Yes

ACEND: Accreditation Council for Education in Nutrition and Dietetics
ACGC: Accreditation Council for Genetic Counseling
ACOTE: Accreditation Council for Occupational Therapy Education
ACPE: American Council on Pharmaceutical Education
ARC-PA: Accreditation Review Commission on Education for the Physician Assistant, Inc.
CAA-ASHA: Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association
CAAHEP: Commission on Accreditation of Allied Health Education Programs
CAATE: Commission on the Accreditation of Athletic Training Education
CACREP: Council for Accreditation of Counseling and Related Educational Programs
CAHIIM: Commission on Accreditation for Health Informatics and Information Management Education
CAHME: Commission on Accreditation of Healthcare Management Education
CAPTE: Commission on Accreditation in Physical Therapy Education
COARC: Commission on Accreditation for Respiratory Care
CODA: Commission on Dental Accreditation
CORE: Council on Rehabilitation Education
JRCERT: Joint Review Committee on Education in Radiologic Technology
JRCNMT: Joint Review Committee on Educational Programs in Nuclear Medicine Technology
NAACLS: National Accrediting Agency for Clinical Laboratory Sciences
M: Master's degree (MA, MS, MS:OHCP, MBA, Executive MBA, MHA, MHS, MPA, MPH or professional masters MNAA)
D: Clinical doctorate (AuD or DPT, OTD)
§ Currently not accredited but "recognized" by credentialing agency

REFERENCES (TABLE B-1)

Accreditation Council for Education in Nutrition and Dietetics.
http://www.eatright.org/ACEND/content.aspx?id=10905. *Accessed May28, 2014.*
Accreditation Council for Genetic Counseling.
http://gceducation.org/Pages/Accredited-Programs.aspx. *Accessed June 6, 2014.*
Accreditation Council for Pharmacy Education.
https://www.acpe-accredit.org/shared_info/programsSecure.asp?sortby=status#Accredited. *Accessed June 6, 2014.*
Accreditation Review Commission on Education for the Physician Assistant, Inc.
http://arc-pa.org/acc_programs/. *Accessed June 6, 2014.*
American Speech-Language-Hearing Association, Council on Academic Accreditation (CAA)-Accredited Academic Program Statistics, August 2014.
http://www.asha.org/academic/accreditation/CAA_Program_Stats.htm. *Accessed June 6, 2014.*
American Speech-Language-Hearing Association, CAA Accreditation Manual.
http://www.asha.org/academic/accreditation/accredmanual/. *Accessed June 6, 2014.*
Commission on Accreditation for Health Informatics and Information Management Education.
http://cahiim.org/accredpgms.asp. *Accessed June 6, 2014.*
Commission on Accreditation in Physical Therapy Education, Accredited PT and PTA Programs.
http://www.capteonline.org/apta/directories/accreditedschools.aspx?type=PT&navID=10737421958. *Accessed November 11, 2014.*
Commission on Accreditation of Allied Health Education Programs.
http://www.caahep.org/Find-An-Accredited-Program/. *Accessed May 22, 2014*
Commission on Accreditation of Athletic Training Education, Three Levels of Accreditation.
http://caate.net/three-levels-of-accreditation/. *Accessed May 28, 2014.*
Commission on Accreditation of Healthcare Management Education.
http://www.cahme.org/dbapp2/program_search.php. *Accessed June 6, 2014.*
CORE Accredited Undergraduate Programs in Rehabilitation and Disability Studies 2014-15 Academic Year.
http://www.core-rehab.org/Files/Doc/PDF/CORE%20Undergrad%20List%20of%20Accred%20Programs%202013.pdf. *Accessed June 6, 2014.*
CORE Master's Programs in Rehabilitation Counselor Education 2014-15 Academic Year.
http://www.core-rehab.org/Files/Doc/PDF/CORE%20List%20of%20Programs%202013-14.pdf. *Accessed June 6, 2014.*
Council on Rehabilitation Education, Accredited Programs.
http://www.core-rehab.org/AccreditedPrograms. *Accessed June 6, 2014.*
Dental Hygiene Education: Curricula, Program, Enrollment and Graduate Information, October 21, 2014.
http://www.adha.org/resources-docs/72611_Dental_Hygiene_Education_Fact_Sheet.pdf. *Accessed June 2, 2014.*
Joint Review Committee on Education in Radiologic Technology.
https://portal.jrcertaccreditation.org/summary/accreditedprogramsearch.aspx. *Accessed June 6, 2014.*
Joint Review Committee on Education Programs in Nuclear Medicine Technology
http://jrcnmt.org/. *Accessed June 6, 2014.*
National Accrediting Agency for Clinical Laboratory Sciences.
http://www.naacls.org/search/programs.asp. *Accessed May 28, 2014.*
Nuclear Medicine Technology Certification Board.
http://www.nmtcb.org/specialty/NMAAExam.php, *Accessed November 11, 2014.*
The American Occupational Therapy Association, Education and Careers, Find a School.
http://www.aota.org/en/Education-Careers/Find-School.aspx. *Accessed June 6, 2014*

APPENDIX C

Concerns with Current CoARC Standards and Policies for Accreditation of Baccalaureate and Graduate Respiratory Care Programs

Standards for Qualifications of Didactic and Clinical Faculty Members

The current CoARC accreditation standards implemented in 2010 require the program director (PD) and the director of clinical education (DCE) to be registered respiratory therapists (RRT) and hold, at minimum, a baccalaureate degree from an academic institution accredited by a regional or national accrediting agency recognized by the U.S. Department of Education (USDE).[6] The Standards do not differentiate between associate and baccalaureate degree programs; however, the proposed 2015 Standards (http://www.coarc.com/29.html, *Accessed October 28, 2014*) require at least a baccalaureate degree for PDs and DCEs of associate degree programs and at least a master's degree for PDs and DCEs of baccalaureate and master's programs. Degrees can be earned in any field of study.

Regionally accredited colleges and universities are academically oriented, degree-granting non-profit institutions. Nationally accredited schools are mostly for-profit institutions that offer career and technical programs; many are non-degree-granting (Council on Higher Education Fact Sheet #1 Profile on Education *Accessed October 28, 2014*). For the sake of academic credibility, key respiratory therapy program faculty members should hold degrees from regionally accredited institutions. Further, the faculty should hold degrees at least one level above the level at which they teach—a long-standing guideline in the academic community.[27]

Graduate Competencies

Accreditation and curriculum standards for Respiratory Therapy Curriculum standards for respiratory therapy are specified by the Commission on Accreditation for Respiratory Care (CoARC).[6] The second AARC 2015 and Beyond conference identified 67 specific competencies in eight major areas (Table C-1).[4] While there are many similarities between the competencies in the two columns of Table C-1, it should be apparent that only one agreed-upon common curriculum standard should exist in the profession.

Table C-1. Graduate Respiratory Therapy Competencies Specified by the AARC and CoARC

Competency areas specified by the second AARC 2015 conference	Competency areas specified in the 2015 CoARC proposed standards
Diagnostics (PFT, sleep, bronchoscopy) Chronic and acute disease management Protocols and evidence-based medicine Patient assessment Leadership Emergency care Critical care Therapeutics	Acquire and evaluate clinical data Patient assessment Diagnostics Evaluate appropriateness of care Establish therapeutic goals Modify care plans Case management Rehabilitation Patient, family and community education Wellness, disease prevention, disease management Evidence based practice For BS/MS programs: Leadership development in management, education, research and advanced clinical practice Optional: Sleep specialist

Qualifications for Site Visitors

Qualifications for CoARC site visitors can be found at www.coarc.com/49.html, *Accessed October 27, 2014*. There are no provisions to ensure that the site visit is a true peer review; i.e., that site visitors for baccalaureate programs are themselves faculty members or medical directors of baccalaureate programs.

Composition of the Accrediting Agency

The CoARC consists of 17 individuals, to include the following:[28]

- 7 from the American Association for Respiratory Care (AARC)
- 2 from the American Thoracic Society (ATS)
- 1 from the National Network of Two-year Colleges (NN2)
- 2 from the American Society of Anesthesiologists (ASA)
- 1 physician at large
- 1 from the Association of Schools of Allied Health Professions (ASAHP)
- 2 from the American College of Chest Physicians (ACCP)
- 1 public member

REFERENCES

1. CoARC. 2013 Report on Accreditation in Respiratory Care Education. Commission on Accreditation for Respiratory Care; 2014.
2. CoBGRTE Committee on Graduate Education. Programs Awarding a Master's Degree. Coalition for Baccalaureate and Graduate Respiratory Therapy Education; 2014.
3. CHEA President Judith S. Eaton. An Overview of U.S. Accreditation. Washington, D.C.: Council for Higher Education Accreditation; Revised 2012.
4. Barnes TA, Gale DD, Kacmarek RM, Kageler WV. Competencies needed by graduate respiratory therapists in 2015 and beyond. Respir Care 2010;55(5):601-616.
5. CoARC. Accreditation Policies and Procedures Manual. Bedford, Texas: Commission on Accreditation for Respiratory Care; 2014.
6. CoARC. Accreditation Standards for the Profession of Respiratory Care. Bedford, Texas: Commission on Accreditation for Respiratory Care; 2010.
7. Barnes TA, Kacmarek RM, Kageler WV, Morris MJ, Durbin CG, Jr. Transitioning the respiratory therapy workforce for 2015 and beyond. Respir Care 2011;56(5):681-690.
8. Kacmarek RM, Durbin CG, Barnes TA, Kageler WV, Walton JR, O'Neil EH. Creating a vision for respiratory care in 2015 and beyond. Respir Care 2009;54(3):375-389.
9. Barnes TA, Kacmarek RM, Durbin CG, Jr. Survey of respiratory therapy education program directors in the United States. Respir Care 2011;56(12):1906-1915.
10. Kacmarek RM, Barnes TA, Durbin CG, Jr. Survey of directors of respiratory therapy departments regarding the future education and credentialing of respiratory care students and staff. Respir Care 2012;57(5):710-720.
11. Respiratory Care: Advancement of the Profession Tripartite Statements of Support: 2003. https://www.aarc.org/resources/cpgs_guidelines_statements/tripartitestatement1.asp *Accessed October 27, 2014*.
12. Barnes TA, Black CP, Douce EH, LeGrand TS, Morfei JJ, Nilsestuen JO. Development of Baccalaureate and Graduate Degrees in Respiratory Care: A White Paper from the AARC Steering Committee of the Coalition for Baccalaureate and Graduate Respiratory Therapy Education: . Respiratory Care Education Annual 2003;12:29-39.
13. U.S. Public Health Service, Commissioned Corps Requirements: Profession - Therapist. http://www.usphs.gov/profession/therapist/requirements.aspx *Accessed October 27, 2014*.
14. Plack M M, Wong C K. The evolution of the doctorate of physical therapy: moving beyond the controversy. Physical Therapy Education 2002;16(1):48-59.
15. CoARC. Accreditation Standards for the Profession of Respiratory Care. Bedford, Texas: Commission on Accreditation for Respiratory Care; 2000.
16. CCNE. Achieving Excellence in Accreditation: The first 10 Years of CCNE. Washington, DC: Commission on Collegiate Nursing Education; 2009.
17. Bullough RL, Bullough B. The Care of the Sick: The Emergence of Modern Nursing. New York: Prodist; 1978.
18. Brown EL. Nursing for the future: A report for the National Nursing Council. New York: Russell Sage Foundation; 1948.
19. 'BSN in 10' regains steam with NY Bill. Daily Briefing: January 4, 2012. http://www.advisory.com/Daily-Briefing/2012/01/04/BSN-in-10 *Accessed October 26, 2014*.

20. Accelerated Programs: The Fast Track to Careers in Nursing. American Association of Colleges of Nursing Daily Briefing: January 2013. http://www.aacn.nche.edu/publications/issue-bulletin-accelerated-programs *Accessed October 27, 2014*.
21. AACN. The Essentials of Master's Education for Advanced Practice Nursing. Washington, DC: American Association of Colleges of Nursing; 2014.
22. Kirkman S, Thompson DR, Watson R, Stewart S. Are all doctorates equal or are some more "Equal than others?" An examination of which ones should be offered by schools of nursing. Nursing Education in Practice 2007;7(2):61-66.
23. AANP. Doctor of Nursing Practice Discussion Paper. Austin, Texas: American Association of Nurse Pratitioners; Revised 2013.
24. Joint statement regarding changes to NBRC admissions policies and CoARC Policy 13. National Board for Respiratory Care and the Commission on Accreditation for Respiratory Care: January 15, 2014. http://www.nbrc.org/Documents/Joint%20Statement%20from%20NBRC%20and%20CoARC.pdf *Accessed October 27, 2014*.
25. American Association for Respiratory Care Position Statement March 2013: Development of Baccalaureate and Graduate Education Degrees. http://www.aarc.org/resources/position_statements/documents/baccalaureate_degrees2013.pdf *Accessed October 28, 2014*.
26. AARC Headlines September 2013: HR 2619 – Medicare Respiratory Therapist Access Act of 2013 Better Access, Better Care, Lower Costs. www.aarc.org/headlines/13/09/hr2619/2619_backgrounder.pdf *Accessed October 27, 2014*.
27. Higher Learning Commission. Criteria for Accreditation and Assumed Practices. Chicago, Illinois: The North Central Association; June 13, 2014.
28. Commission on Accreditation for Respiratory Care: 2014 Commissioners. www.coarc.com/8.html *Accessed October 27, 2014*.

"Dedicated to Improving Respiratory Therapy Education"

www.cobgrte.org