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## **Education Requirements for Respiratory Care Practitioners**

### **Position Statement**

***The California Society for Respiratory Care endorses and supports bachelor's degree programs in respiratory care (or equivalent) for education and training as a minimum requirement for licensure. Additionally, all newly accredited respiratory care educational programs must award, at minimum, the bachelor's degree in respiratory care. Finally, Respiratory Care Practitioners (RCPs) seeking to practice in advanced clinical settings, leadership roles, research, and in professional educator roles are encouraged to earn masters or doctoral degrees.***

### **Introduction**

After more than a half a century, the profession has evolved from an on-the-job trained workforce to a college educated and licensed profession. In this era, RCPs are expected to assess and quantify their patient's conditions while appropriately applying algorithmic protocols in the provision of respiratory care. Critical thinking, decision-making, and competence to perform these responsibilities are demanded of practitioners at an advanced level. Rapidly changing technology has increased expectations for the profession, and both the American Association for Respiratory Care (AARC) and California Society for Respiratory Care (CSRC) representing respiratory care programs advise that increasing levels of credentialing and education are essential for today's RCPs.

### **American Association for Respiratory Care (AARC) "2015 and Beyond" Conference Series**

The AARC's "2015 and Beyond" project was launched in 2007, to set future directions for the respiratory care profession in the United States. Representatives from all stakeholder groups, including not only RTs, but also physicians, payers, government officials, credentialing agencies, accreditors, patients, and employers were invited to participate.

The first conference was titled "Creating a Vision for Respiratory Care in 2015 and Beyond." The goal was to identify potential new roles and responsibilities of RTs in 2015 and beyond, and to suggest the elements of education, training, and competency-documentation needed to assure safe and effective execution of those roles and responsibilities<sup>1</sup>.

The second conference focused on identifying the competencies, knowledge, skills, and attributes required to fulfill those future roles. The proceedings were published in the 2010 paper; "Competencies Needed by Graduate Respiratory Care Practitioners in 2015 and Beyond." There was broad consensus achieved regarding the needed competencies, knowledge, skills, and attributes, but when it came to attempt to parse the entry level and advanced level, there was less success in achieving a similar level of consensus<sup>2</sup>.

The third and final conference focused on transition issues. It attempted to answer the question, how do we take the profession from where we are today to where we need to be in the future, and to optimize our role and value for our patients and our employers? As a result, the following recommendations were identified<sup>3</sup>:

**Education:**

- Request the Commission on Accreditation for Respiratory Care to change accreditation standards requiring minimum education standards at the bachelor's level by the year 2020.

**Credentials:**

- That the Certified Respiratory Therapist (CRT) examination be retired and NBRC examinations be modified to reflect appropriate credentialing testing.

**Licensure:**

- Establish a commission to assist state regulatory boards transition to the RRT credential as the entry level requirement for licensure as a Respiratory Care Practitioner.

**Transition of Respiratory Care Workforce**

- Develop standards to assess the competency of RCPs in a variety of work sites addressing knowledge, skills, and attributes relative to tasks being evaluated.

**Continuing Education:**

- Use clinical simulation as a major tactic for increasing the competency of the workforce.

**Promotion of a Career Ladder:**

- Explore development and promotion of career ladder education options for members of the existing workforce to obtain advanced competencies and the Baccalaureate degree.

In November 2015, the AARC updated their position statement on Respiratory Care education recommending the attainment of Baccalaureate, Masters, and Doctoral degree educational attainment to support competency within the profession<sup>4</sup>.

**Beyond 2015: California Society for Respiratory Care (CSRC) Advocates for RRT as Entry Level Standard**

Even before the AARC began its landmark meetings<sup>1-3</sup> "Respiratory Care 2015 and Beyond," members of the California Society for Respiratory Care (CSRC) were actively engaged in dialog centered on advancing the profession in California. In early 2004, the CSRC Board of Directors took action and presented to California Respiratory Care Board (RCB) Executive Director with a request to "consider or change the entry-level examination from the CRT to the RRT." It was felt that increasing the National Board for Respiratory Care (NBRC) credential from the Certified Respiratory Technician (CRT) credential to the Registered Respiratory Therapist (RRT) credential as a California license minimum would ultimately lead to higher quality respiratory care for California patients and to also advance the respiratory care profession in California.

In September 2005, the CSRC establish an Advanced Practice Commission (APC). The charge was to:

- Make the RRT credential required to practice respiratory care in the State of California.

- Initiate and explore the feasibility of working towards the establishment of an advance practice credential and license for RCPs who wish to advance their career in critical care science and practice.
- Reach out to and open a dialog with the RCB on how best to press for their development and implementation in California.

The commission produced its first call to action in the form of a CSRC Whitepaper on advancement of our profession<sup>5</sup>. In this very important first step, the CSRC first called for an RRT license minimum in California. Over the following years, the CSRC and RCB in partnership, studied the issue and deliberated to draft and propose legislative initiatives to effect this change. In 2007, the RCB published its comprehensive Respiratory Care in California Workforce Report. The report highlighted the dynamics involved across California such as the CRT/RRT mix among practitioners. This report gave the facts and figures necessary to fully understand the RCP workforce in California. In particular, 54% of surveyed educators and 45% of surveyed employers supported RRT as the CA RCP license minimum entry credential. Survey results also supported mandating a time line for RCPs to progress from the CRT to RRT credential within a time period such as 3 years after entry. During this period, many California Schools responded to changes in the market by opting to close out their entry programs (CRT) in favor of the more comprehensive advanced (RRT) programs.

By 2013, momentum for advancing the profession and increasing the threshold was evident. As a result, the CSRC updated its Professional Advancement Whitepaper and adopted a formal companion CSRC Position Paper<sup>6</sup>. With these supporting documents, members of the CSRC Board of Directors testified before the RCB on behalf of the CSRC and its constituents advocating in favor of establishing the RRT exam as the minimum exam requirement for licensure in California. The RCB approved formal action “that the Respiratory Care Board recognize the RRT examination as the minimum requirement for licensure for new candidates and to investigate the timeline for implementation”. This initiated the formal legislative process and advanced the request to the California Legislature.

Assembly Bill 1972 approved by the California Legislature and was signed into law in July of 2014 by Governor Jerry Brown. AB 1972 set forth the requirement that RRT credential as the minimum threshold for candidates seeking licensure in the state of California. The requirement became effective in January 2015<sup>7</sup>.

California, one of a handful of states to enact the RRT as minimum requirement for licensure, has led nation in advancing competency for the profession. These results were the culmination of many years of hard work to help ensure higher quality respiratory care for California patients and effect positive change in our profession.

### **California Respiratory Care Workforce Study**

In 2016 the University of California San Francisco - Philip R. Lee Institute for Health Policy Studies, supported by the Respiratory Care Board of California, conducted a study of California’s respiratory care workforce<sup>8</sup>. The principal objective of the study was to discover the perceptions and opinions of key stakeholders on a range of critical respiratory care workforce issues. Study components included an academic literature review, an in-depth comparative analyses of respiratory care

education competencies & curricular content employing key informant interviews, a statewide survey of directors of respiratory care services, and a series of focus groups currently employed RCPs.

Over 60 percent of directors support increased respiratory care education to address the technical complexity of respiratory care, the clinical knowledge it requires, the broadening roles and responsibilities of RTs as care providers, and respiratory care education needs to move to a four-year bachelor's degree. Some expressed opinions that the Associate degree program is too compressed and does not provide enough coverage in respiratory care core competencies. In addition, they also agreed that moving respiratory care education to the baccalaureate degree level is necessary to create career opportunities in the profession. Finally, there was strong agreement among RC directors that respiratory care is perceived as a technical occupation and moving towards a baccalaureate degree requirement is necessary to raise the field's professional standing.

Focus group RCPs offered several reasons in support of a baccalaureate degree requirement for entry into practice. Many recognized value in additional didactic and clinical training, believing it will produce RCPs who are clinicians as opposed to technicians. Some RCPs felt that the baccalaureate degree would expose students to broader systems-knowledge such as process improvement, compliance, reimbursement, EHR meaningful use, and patient safety, which could help foster professional opportunities. RCP focus group participants were also sensitive to their standing relative to other health professionals, in particular RNs. They acknowledged a trend in health professions education toward higher degrees. A common theme among these focus group participants was that a bachelor's degree is needed to develop the clinical competencies and depth of knowledge that will be required to prepare RCPs to practice to the full extent of their legal scope of practice. One of the focus group participants who had returned to school to earn her baccalaureate degree in respiratory care felt that the value came from "being exposed to advanced diagnostics, to clinical research, to statistics...from engaging all of these things at a much deeper level... to deal with complex cases." There were also several RCPs who felt that the associate degree curriculum is simply too compressed; there is not enough time to cover all of the didactic material and receive sufficient clinical training.

Many of the focus group RCPs were aware of the possibility that shifting to a baccalaureate degree requirement might function as a barrier to entry, reducing the supply of new entrants to the labor force, which was viewed mainly as a positive outcome, as the view that there are too many education programs and too many new RCPs looking for employment was widely held. Equally, the possibility that a higher degree requirement could induce a selection effect that changes the profile of a student who wants to pursue respiratory care was also seen as a potentially positive outcome. "If it results in a more motivated student who really wants to be in respiratory care – rather than someone who didn't get into the nursing or radiology technology program – that's going to be good for the profession," commented one RCP.

Nine of the ten education directors interviewed expressed support for requiring a baccalaureate degree in respiratory care, though some voiced concerns. These education directors worried that a baccalaureate degree requirement may prove to be a disincentive to some students who are attracted to respiratory care because they are able to gain entry to a good career with just an associate degree, in contrast to many RCPs in the focus groups who saw this possibility as a positive outcome. One director noted that the additional expense in tuition, fees, and the opportunity cost of

a longer time to degree was a concern, remarking, “I’m not sure there’s any reason to expect the baccalaureate degree will result in therapists being paid more.”

Overall, education directors offered several reasons in support of shifting respiratory care education to the bachelor’s degree level, including the belief that it would allow more in-depth coverage of topics and increased exposure to clinical procedures. Directors indicated that a baccalaureate degree program could offer more extensive coverage of topics related to leadership and departmental management, healthcare finance, as well as research methods and professional communication (e.g. presentation skills, patient education, difficult conversations).

Within thematic alignment of RC directors and many of the RCPs who participated in focus groups, education directors felt that a baccalaureate degree requirement was important for reasons related to professional development. Several education directors reported expectations that emerging professional roles would receive greater emphasis in a baccalaureate program. One director commented, “We would look for opportunities to pair students with practitioners who are working as clinical educators or case managers, or someone who does utilization review, or even telehealth, so students actually have a point of reference and understand the expectations for those kinds of roles.” Many education directors referenced the minimum educational requirements for non-physician health professionals covered under Medicare law, noting that RCPs will need a baccalaureate degree to be reimbursed for services.

Education directors also cited the need for respiratory care to keep pace with other professions in terms of educational attainment, referencing physical therapy, occupational therapy, and physician assistants as examples of professions in the past decade that have all raised the level of education required to practice. Echoing both RC directors and RCP focus group participants, one education director remarked that respiratory care “is still looked upon by some as on-the-job training, a technical occupation, and not a profession. Educating our students at the baccalaureate degree level can help change that perception.”

The most important factor driving support for the baccalaureate degree among education directors was the expectation that it would encourage the development of critical thinking. One director commented, “I have students in my program who already have their bachelor’s degree and they stand out...their critical thinking and decision-making stands out compared to the other students; their thought process is more developed.” Another education director who strongly supported a baccalaureate degree requirement reiterated the value of critical thinking: “If you’re going to communicate to a physician about a change in therapy, or why you think a patient would benefit from this treatment more than that treatment, you need to be able to support why you’re asking for a change.” This director felt that a baccalaureate level curriculum will help develop and refine the critical thinking skills that support clinical reasoning. Education directors also reported expectations of being able to incorporate problem-based learning (e.g. case studies and patient scenarios) to a greater extent in a baccalaureate degree versus associate degree curriculum. Said one director, “If we had more time to spend on these aspects, I think we’d really improve students’ ability to see the whole picture rather than just focus on one small piece of the puzzle.”

The UCSF study team conducted a review of academic literature to identify scholarly work that addresses the relationship between the type of degree earned by respiratory therapists and patient outcomes. Although the review did not discover any scholarly work addressing this specific question, one of the salient themes in the literature was the importance of developing RCPs' ability to think critically. Critical thinking is a broadly applied skill influencing all other areas of competency including critiquing published research, interpreting statistical testing, modifying protocols based on new evidence, and articulating rationales for modes of therapy. A national survey of education program directors found that baccalaureate level compared to associate degree programs are more likely to teach the types of competencies that develop critical thinking skills.

There is evidence that a greater breadth of coursework is associated with greater critical thinking ability. In a study of respiratory care students enrolled in a baccalaureate -level program, those with strong science course background (i.e. more coursework) scored significantly higher on the Watson-Glaser Critical Thinking Appraisal compared to students who had a weaker background. Other studies of critical thinking ability in health sciences students have shown that coursework in the humanities and interdisciplinary fields have a statistically significant positive association with critical thinking. If developing an RCP's ability to think critically is necessary, for all the reasons noted by focus group participants, there is evidence to support shifting entry-level education to the baccalaureate level in order to achieve this goal.

### **Continuing Education for California Practitioners**

Continuing education has been an important component to supporting competent and high-quality care for patients in California. Practitioners in California have been required to complete 15 continuing education (CE) units every two years as part of licensure renewal requirements. A study was performed by the CSRC and RCB to evaluate requirement standards for other states as well as other health care professions. When comparing minimum requirements with other licensing states throughout the nation, California rankings 11 out of 50 (22nd percentile). When comparing to other professions with high levels of responsibility and autonomy, CE requirements for RCPs were the lowest.

Practitioners have always strived to provide quality effective care for Californians. The "2015 and Beyond" conferences have identified high levels of understanding and competency for practitioners to effectively support and treat patients. Continuing education was one of the areas identified in which this objective could be achieved.

The Respiratory Care Board has amended its continuing education (CE) regulations to increase the number of CE units required for license renewal. Beginning with licenses that expire on July 31, 2017, the number of CEs will increase from 15 to 30<sup>9</sup>.

The requirement stipulates that at least two-thirds of CE units (now 20 of the required 30) be directly related to clinical practice, and completion of the Law and Professional Ethics Course continue to count as three (3) non-clinical CE units. The RCB is looking into what additional factors need consideration to ensure the quality of continuing education such as designating content areas and a mixture of live versus online continuing education courses. Many other states have already incorporated these factors in order to promote quality of continuing education.

The increase of continuing education further supports the importance of educational requirement standards for the profession.

### **Formal Education Standards for Practitioners**

More than ever, practitioners are expected to be highly knowledgeable, compile an array of information and assess complex conditions, as well as competently apply care in many areas directly focused and related to respiratory care. Factors such as increased emphasis on evidence-based medicine, focus on respiratory disease management, demands for advanced patient assessment, and growing complexities of American healthcare overall, clearly mandate that respiratory care practitioners achieve formal academic preparation commensurate with an advanced practice role. There are many respiratory care professional organizations discussing and supporting the movement to a baccalaureate degree as the minimum education standard for entry level practice.

One such organization is the Coalition for Baccalaureate and Graduate Respiratory Therapy Education (CoBGRTE)<sup>10</sup>. CoBGRTE aims to help students, faculty members, and the general public learn about baccalaureate and graduate respiratory care education in the United States. Focused objectives in relation to educational standards are as follows:

- Assist faculty members that are developing curricula for new baccalaureate and graduate respiratory care programs.
- Conduct research on respiratory care educational programs and the healthcare workforce.
- Engage in study and planning related to the development of new baccalaureate and graduate respiratory care programs.
- Advocate for development and establishment of the baccalaureate and graduate respiratory care programs.

In November of 2014, the Coalition for Baccalaureate and Graduate Respiratory Therapy Education (CoBGRTE) published a white paper on Respiratory Care Program accreditation<sup>11</sup>. In their discussions they advocate to increase education standards for Respiratory Care Practitioners:

“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.”

Additionally, the AARC has released a position statement in regards to respiratory care educational requirements for new practitioners entering the field. The following is an excerpt from their recently revised statement in November 2015<sup>12</sup>:

“The primary purpose of a formal respiratory care educational program is to prepare competent respiratory therapists for practice across multiple health care venues. Respiratory care educational programs are offered at technical and community colleges, four-year colleges, and universities. ***Training and education for entry-to-practice as a respiratory therapist should be provided within programs awarding a bachelor’s or master’s degree in respiratory care (or equivalent degree titles) and all newly accredited respiratory care educational programs must award, as a minimum, the bachelor’s degree in respiratory care (or equivalent degree title).*** Associate degree respiratory care programs which are currently accredited by the Commission on Accreditation for Respiratory Care (CoARC) should be allowed to continue in good standing as long as they remain in compliance with all other CoARC polices and standards. The AARC supports existing and future articulation agreements between associate and bachelor’s respiratory care programs. Respiratory therapists seeking to practice in advanced clinical settings, leadership roles, research, and in professional educator roles should seek higher education at the masters or doctoral levels.”

In January 2016, the Committee on Accreditation for Respiratory Care (CoARC) responded recognizing and supporting AARC’s position statement<sup>13</sup>. In their response they stated the following:

“The CoARC acknowledges that respiratory therapists with baccalaureate and graduate education are needed in larger numbers to serve as educators, researchers, managers, clinical specialists, and other roles throughout the healthcare delivery system. Likewise, the CoARC recognizes the prominent role played by associate degree respiratory therapy programs. To support the increasing extent and complexity of the skills required of graduates of Respiratory Care programs and the associated movement of the profession toward baccalaureate and graduate degrees, the CoARC Board of Commissioners, in collaboration with the AARC, propose the following change to Standard 1.01 in the *Accreditation Standards for Entry into Respiratory Care Professional Practice*, to be effective January 1, 2018:

***“Except as provided in the following sentence, an educational sponsor must be a post-secondary academic institution accredited by a regional or national accrediting agency that is recognized by the U.S. Department of Education (USDE) and be authorized under applicable law or other acceptable authority to award graduates of the program a baccalaureate or graduate degree upon completion of the program. For programs that were accredited prior to January 1, 2018, an educational sponsor must be a post-secondary academic institution accredited by a regional or national accrediting agency that is recognized by the USDE and that is authorized under applicable law or other acceptable authority to award graduates of the program an associate or equivalent degree upon completion of the program.”***

The proposed changes were approved at their November 2016 board meeting and are effective January of 2018. Moving forward, CoARC will only approve baccalaureate degree programs and no longer approve NEW Associate Degree programs. Associate degree program accredited prior to January 2018 will stay accredited and provide Associate degree education as long as they maintain good standing.



As a result of these discussions, the number of baccalaureate degree programs have increased. While most traditional baccalaureate and Masters degree programs are situated to the East Coast and Midwest, in recent years, more online degree completion programs have been made available for practitioners regardless of where they live. This has provided greater access for California practitioners to complete respiratory care baccalaureate degrees.

Currently, there are few respiratory care baccalaureate degree programs in California. However, with the increase in demand due to greater need in formal education expectations, more programs have become available through private and public education systems. California holds the highest number of active licensed respiratory care practitioners in the nation with more than 24,000 (Texas is second with under 14,000). The majority of these licensed practitioners have attained an associate degree. With the identified need for baccalaureate degree prepared graduates, California demonstrates a significant gap in meeting these needs.

In supporting access to baccalaureate degree education in California, Governor Jerry Brown, in September of 2014, signed SB 850 (Block) authorizing the Board of Governors of California's Community Colleges to establish a statewide baccalaureate degree pilot program at no more than 15 California Community Colleges<sup>14</sup>. Of the 15 programs, two have received approval for Respiratory Care baccalaureate programs; Modesto Jr. College in Modesto, California and Skyline College in San Bruno, California. California has become the 24<sup>th</sup> state in the nation to offer bachelor's degrees within their community college system. Loma Linda University and San Joaquin Valley College, both private colleges, also offer baccalaureate degrees.

### **2020 and Beyond**

California has been a leader for respiratory care practitioners across the nation. This has been evidenced time and time again through standards in licensure, credentialing, and formal and continuing education. Over the next decades, demands for practitioners to critically think, assess, and practice within a more independent scope will continue to increase. These efforts will help move the profession beyond providing bedside care in the hospital and allow greater opportunities for practitioners to engage in care that is outcomes-focused and provides greater impact to the future healthcare delivery system.

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