



NORTH CAROLINA RESPIRATORY CARE BOARD

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POSITION STATEMENT

RESPIRATORY CARE STAFFING LEVELS

The North Carolina Respiratory Care Board is issuing this position statement to provide guidance about the Board's interpretation of the Respiratory Care Practice Act ("the Act") and the Board's Rules, as the Act and Rules relate to the establishment of respiratory staffing levels. The Board is issuing this Position Statement after receiving a request for Declaratory Ruling from the North Carolina Respiratory Care Managers Group, and after determining that the members of the Managers Group are not aggrieved by the provisions of the Act and the Board's Rules that were cited in the request.

This Position Statement illuminates an area of concern by the Board in regard to Respiratory Care staffing levels and provides general guidance on that subject to the Board's licensees and to other health providers. In issuing this Position Statement, the Board is not making a determination that any individual or organization has violated the Act or its Rules, or that a particular course of action violates the Act or the Board's Rules. It is simply presenting general principles that it believes should be considered in establishing Respiratory Care staffing levels. Therefore, issuance of this Position Statement does not constitute an adverse determination affecting any individual or organization. The Board will not initiate disciplinary action against a licensee, or other action against organizations or unlicensed individuals, based on Respiratory Care staffing levels unless it receives specific information about a particular course of conduct, and only after due consideration and assessment of the specific information that is received.

This position statement will be posted on the Board's website, but as it continues to exercise its statutory responsibilities, the Board reserves the right to change or supplement this position statement based on future developments or situations that come to its attention.

BACKGROUND AND PURPOSE

This position statement is being issued in response to a concern raised by various Respiratory Care Practitioners, including the North Carolina Respiratory Care Managers Group. The concern, as it has been expressed to the Board, is that organizations are applying a limited spectrum of staffing measurement standards to project the number of full-time equivalent (FTE) staff needed to provide respiratory services to patients, in some cases based on recommendations from outside consultants to the organizations. In particular, and based on information furnished to the Board, some organizations are setting their respiratory staff levels by: (1) relying exclusively on billable procedures based upon Current Procedural Terminology (CPT) codes or other standard billing protocols; (2) using standardized models that are derived solely from general data such as patient days, or average daily census; or (3) applying industry-wide benchmarking criteria.

This issue was presented to the Board by the North Carolina Respiratory Care Managers Group ("the Managers Group") in a Request for Declaratory Ruling. Members of the Managers Group supervise their staffs and are responsible to ensure that the persons who act under their

supervision provide appropriate respiratory care services. Therefore, the Managers Group was concerned that they might be affected by the Board's application of N.C. Gen. Stat. § 90-659(a)(1)(d), to the staffing levels in the institutions where the members work and supervise others. That portion of the Act prohibits "health care practices that are determined to be hazardous to public health, safety, or welfare." There also are related provisions in the Board's rules at 21 NCAC 61 .0307(10) and (13).

The Managers Group asked the Board to issue a declaratory ruling to address the standards, metrics, and staffing systems that may be used to safely and cost-effectively set staffing levels in hospital Respiratory Care Departments in this state. As noted above, the Board declined to issue the ruling that was requested because it determined that the members of the Managers Group were not aggrieved by the application of the cited portions of the Act or the Board's Rules. However, the Board determined that based on the information that was submitted or available to it, the Managers Group had raised a significant issue that merited attention in a Position Statement.

THE MATTERS AT ISSUE

Detailed information on the scope and depth of the staffing level issue was obtained in a state-wide survey of Respiratory Care Department Managers that was conducted in June of 2011. This study sought to determine the current staffing metrics and staffing patterns in use, and to derive some general information about the effects of the resulting staffing levels on patient care. Thirty-five Respiratory Care Managers from approximately 150 NC Hospitals responded to the survey, constituting approximately a 23% response rate. The survey results are described in detail in Appendix A and in general, they demonstrate staffing level concerns of the Respiratory Care Managers responding to the survey.

The information obtained in this survey, though admittedly incomplete, presents a very serious and significant issue which can have a direct impact on patient safety. Therefore, the Board has determined that it should issue this Position Statement.

POSITION STATEMENT

A. Respiratory Staffing Levels Can Have a Direct Impact on Patient Safety.

Although the Board does not have authority over the conduct of institutions with Respiratory Departments and their staffing levels, the Board clearly has been granted explicit statutory authority over the practice of respiratory care. This grant of authority is based on the fundamental premise enunciated by the General Assembly in the Act, that "the practice of respiratory care in the State of North Carolina affects the public health, safety and welfare ..." N.C. Gen. Stat. § 90-647. Further, there is a broad recognition in the health care industry that staffing levels are a compliance issue for the institutions that offer Respiratory Care. The Centers for Medicare and Medicaid (CMS) require in its Conditions of Participation for Respiratory Care Services that "*there must be adequate numbers of Respiratory Therapists and other personnel who meet the qualifications specified by Medical Staff, consistent with State law*".

The number and qualifications of the respiratory care staff who work at an organization at any given time certainly can have a direct and substantial impact on the quality of respiratory care that will be provided. Pursuant to its statutory authority and the legislative mandate, the Board has adopted rules that address the individual qualifications and assignment of respiratory care practitioners and those rules forbid the assumption, or the delegation, of duties for which a respiratory care practitioner is not well qualified. The sheer number of Respiratory Care Practitioners who are available to provide services can have a profound and direct impact on the quality of care. Therefore, in adopting this position statement relating to Respiratory Care staffing levels, the Board is acting well within its statutory authority.

B. Any Metric, Model, or System that is Used to Define Respiratory Staffing Levels Should Recognize and Account Appropriately for All the Activities Required of a Respiratory Care Practitioner During the Relevant Period.

Measurements that forecast the levels of respiratory staffing required should recognize and account for all of the activities in which respiratory care practitioners can reasonably be expected to be engaged. The information submitted to the Board indicates that some organizations may engage in one or more of the following approaches to establish Respiratory Care Staffing levels:

- Relying solely on CPT codes or other standards that only define activities that may be billed to a patient or third-party payor;
- Relying on other internal measures that do not embrace all of the activities required of Respiratory Care Practitioners during a particular time period;
- Relying on general, undifferentiated measures such as procedure counts, which fail to include varying time required to perform different procedures. One procedure such as measuring peak expiratory flowrate, may take 5 minutes to perform, whereas another procedure, such as bronchoscopy assistance, may take 70 minutes to perform;
- Limiting the number of repetitive actions per patient in a unit of time to a level that does not accurately reflect a realistic level of involvement;
- Including fixed time spent for management, supervision, education, meetings, research, and support activities in variable, direct patient care productivity measures; and
- Setting staffing levels by benchmarking with other institutions that have adopted one or more of the foregoing approaches, or using inaccurate data from external proprietary consulting companies which has not been validated, or without appropriately accounting for differences in department services or patient acuity levels.

Any of these approaches can lead to an insufficient level of Respiratory Care staffing, or inappropriate use and allocation of staff resources. For instance: An exclusive focus on CPT codes or other standards that only defines activities that may be billed can lead to the omission of a large number of non-billed activities from the total Respiratory Care staff time that may be required, including each of the following, among others:

- Adult Transcutaneous monitoring during High Frequency Oscillatory Ventilation;

- Airway Management Procedures (suctioning, monitoring cuff pressure, manipulation of specialty airways, and application of airway attachments such as speaking valves;
- Apnea Testing for Brain Death;
- Arterial Line Insertion;
- Assessment/Screening Patients for Obstructive Sleep Apnea;
- Assessments of Patients;
- Attendance at High Risk C Sections and Deliveries;
- Cardioversion Monitoring of the Patient;
- Code Blue Responses for Cardio-Pulmonary Emergencies;
- Conscious Sedation Monitoring;
- Documentation, Completion and Processing Physician Orders;
- Processing Patient Charges;
- Endotracheal Tube Repositioning and Securing;
- Extubations;
- Heliox Administration;
- Inpatient Sleep Apnea Monitoring;
- Lung Recruitment Maneuvers;
- Nitric Oxide Administration;
- Participation in Multi-Disciplinary Critical Care Rounds;
- Patient and Family Education;
- Patient Self-Management Programs (examples Include Asthma and COPD Education);
- Patient Transports Requiring Mechanical Ventilation or Airway Care;
- Rapid Response Team Participation;
- Respiratory Care Consultations;
- Setup and Monitoring of Patient Monitoring Devices;
- Setup and Monitoring of Oxygen Delivery Devices;
- Smoking Cessation Consultation and Education;
- Spontaneous Breathing Trials;
- Tracheotomy or Bronchoscopy Assistance;
- Ventilator Management and Weaning.

Similarly, relying on internal measures, such as Total Patient Days, Average Daily Census, Adjusted Discharges per Patient Day, and Nursing hours per patient day, none of which accounts for all of the activities required of Respiratory Care Practitioners during a particular time period, can lead to the omission of important functions from staff level planning.

Use of productivity measures which involve comparisons to other organizations, or benchmarking an organization's staffing to industry-wide data that do not accurately and fully account for the activities required for a particular patient population in an individual organization also can lead to the omission of important functions from planning for staff levels.

The use of inappropriate metrics or inaccurate benchmarking or comparative data can result in a number of adverse events and outcomes, including a tendency to emphasize procedures that can be billed, spending less time on non-billable procedures, reduced levels of service, the

provision of different standards of care delivered to different areas of the hospital, or a tendency to provide concurrent therapy to make up for lost time. This also can have a significant negative impact on the Respiratory Care Staff, resulting in a negative impact on staff morale, increased turnover of staff, and increased staff stress levels due to staff being prevented from providing the proper patient care. Therefore, using inappropriately narrow measures or inaccurate benchmarks of Respiratory Care performance can have a serious impact on the quality of Respiratory Care and thereby affect “the public health, safety and welfare ...” N.C. Gen. Stat. § 90-647.

C. Any Data, Model, or System that is Used to Project Required Levels of Respiratory Staffing, by non-licensed RCP’s, that impact staffing levels may be considered practicing respiratory care without a license.

The NCRCB previously issued a Position Statement entitled, “Respiratory Care Management” in which the Board states:

The individual responsible for direct management of Respiratory Care Services is responsible for day-to-day operations related to patient care issues which includes: Determines staffing needs and schedules assigned staff accordingly. The Position Statement further states: Individuals supervising or managing inpatient care environments must meet the same rigorous standards of professional competency to ensure safe delivery of care. Respiratory Care Services are such that the public is at risk of injury, and health care institutions are at risk of liability when respiratory therapy is provided by inadequately educated and unqualified health care providers rather than by practitioners appropriately educated in the specialty of Respiratory Care.

Individuals and organizations that provide metrics, comparative data, benchmarking data, and budget salary dollars for Respiratory Care staffing levels directly impact the staffing of North Carolina hospital respiratory care departments. Any determination of Respiratory Care staffing levels that fails to account for the full spectrum of activities that will be required of Respiratory Care Practitioners, or which simply imposes a general comparative or benchmarking staffing model that is not based on the actual experience of the institution in question, in essence constitutes an implicit determination that all of the required, but unaccounted for, Respiratory Care activities are unnecessary. In those circumstances, the individuals or organizations that present or recommend these incomplete staffing models are making a determination that a portion of the spectrum of Respiratory Care activities need not be provided. Because the staffing level will be insufficient to provide the unaccounted for activities for patients, the Respiratory Care Practitioners may be forced to engage in unacceptable conduct, such as, concurrent therapy.

Thus, the individuals and organizations who provide or establish staffing levels without accounting for the full spectrum of activities may be determined to be engaging in the Practice of Respiratory Care, because they are making judgments that will directly impact the scope and level of Respiratory Care that will be provided to patients in a given time period, and must be licensed by this Board. Individuals and organizations that engage in this conduct without a license may receive disciplinary actions by the Board. Practicing Respiratory Care in North Carolina without a license is a Class 1 Misdemeanor.

CONCLUSION

The Board urges organizations that offer Respiratory Care services to work closely with the Respiratory Care Managers and Practitioners to develop comprehensive and realistic metrics, staffing models, and benchmarks which are evidence-based, data-driven, and capture the full range of activities required of Respiratory Care Practitioners; so that staffing is set at levels which can provide consistent, safe, cost-effective, and high quality care.

It is unethical for a licensee of this Board to **recommend** metrics or staffing patterns that will have the clear effect of understaffing a Respiratory Care Department. Unethical conduct by a Licensee is subject to disciplinary action by the Board.

Specific Conduct that is brought to the attention of the Board and is determined to constitute the unlicensed Practice of Respiratory Care is subject to other remedies in the Act.

The Board recommends that the following principles should be considered to establish safe and effective staffing levels in Respiratory Care Departments:

1. **Effective staffing systems apply well-documented Relative Value Units.**

- Because of varying time periods required to perform different Respiratory Care procedures, the measures of Respiratory Care staffing productivity used to establish staffing levels should be based upon Relative Value Units (RVU's) for all the services provided by a particular department. Relative Value Units have been widely recognized as appropriate measures and have been adopted by the Centers for Medicare and Medicaid Services (CMS) for physician reimbursement.¹ Other metrics have been shown to correlate poorly with Relative Value Units and should not be used to determine staffing and productivity.²
- National RVU time standards, such as the system in the American Association for Respiratory Care Uniform Reporting Manual³, should be utilized to construct a staffing system.
- Since Respiratory Care is "seasonal" and procedure volumes historically increase during the cold and flu season between December and April, it is recommended that historical RVU data be used to project additional staffing required for these and other high intensity operating periods.

2. **Effective staffing systems account for all expected tasks and activities.**

- The system should account for non-billable procedures and tasks, in addition to those that are billable.
- It has been documented in the literature that unscheduled Respiratory Care activities, including such tasks as Emergency Department procedures, patient transports, and rapid response calls may account for up to 40% of the workload.⁴

Staffing levels should account for this unpredictable part of the workload based upon historical data and work rate. Failure to include unscheduled procedures in staffing projections results in mathematically impossible workloads and understaffing.⁴

An Ad Hoc Committee on Respiratory Care Staffing has been established by the Board to include interested stakeholders with the charge to further define staffing guidelines and communicate these guidelines with the Board.

APPENDIX A: SURVEY RESULTS

- a. Approximately 30% of hospital Respiratory Care Departments are chronically understaffed. (defined as more than two FTE understaffed for more than 30 days).
- b. Approximately 75% of hospital RT departments are using metrics that specifically are recommended to NOT be used by the national professional association (AARC) because they underestimate staffing levels required for safe services.
- c. 100% of the RC Management felt that the determination of safe staffing levels requires professional judgment to ensure patient safety and falls within the scope of practice for respiratory care.
- d. More than 50% of the RC Management rated the benchmarking/comparative data provided by external consultants as “poor” or “extremely poor” because of inaccuracies of the data provided by the proprietary companies.
- e. Multiple patient safety issues were cited by Respiratory Care Management due to understaffing, because of erroneous data provided by consultants, including:
 1. Missed medication treatments. (# 1 issue based upon responses)
 2. Delayed medication treatments. (#2 issue based upon responses)
 3. Delays responding to emergency code situations and rapid response calls.
 4. Patients experiencing respiratory distress.
 5. Staff practicing concurrent therapy. (#3 issue based upon responses)
 6. Increased incidence of Ventilator Associated Pneumonia.
 7. Decreased handwashing compliance.
 8. Increased pressure ulcers due to tight straps from masks.
 9. Multiple managers reported that the number of ventilator patients to therapists, during the busy season (December through April), exceeded what was mathematically possible for one person to accomplish, based on 2004 AARC URM time standards.

APPENDIX B: CITED REFERENCES

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