The Structure and Implementation of Respiratory Therapy Orientation for Clinical Staff in Acute Care Hospitals

Thesis

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By

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Abstract

BACKGROUND: The healthcare industry relies on hospitals to employ competent individuals providing care to patients in many different specialties. There is a lack of research available that effectively describes the current state of Respiratory Therapy department orientation. The purposes of this study were to describe how respiratory therapy department managers have structured their new employee orientations programs to verify competency (using the competencies from the AARC’s 2015 and Beyond) and describe how these programs were designed to meet the JC standards. METHODS: This study was executed through the use of survey research methodology and used the list serves for the national Management and Education Section Memberships of the AARC to distribute the survey invitation email, which totaled 2,907 members. A request was made in the email for the recipient to forward the survey to the individual in the department who is responsible for new employee orientation. Thirty-seven of the sixty-nine competencies outlined in the 2015 & Beyond initiative were selected. The JC standards originated from the Human Resources section of the 2010 Hospital Accreditation Program Standards. RESULTS: From 449 respondents who accessed the online survey, 333 met the inclusion criteria. Fifty-five percent of respondents described their hospital type as a community hospital, 30.1% as Academic/Teaching, 4.0% as Children’s, and
under the other option respondents listed types of hospitals as: LTACHs, specialty, and cardiology. Forty-two percent of respondents described their hospital location as urban, 30.6% as suburban, and 26.9% rural. Two hundred twenty-six (77%) respondents indicated newly hired staff therapists receive individualized orientation programs based on their needs or passed experience. Individuals responsible for conducting newly hired staff therapist orientation reported that additional training had been completed in order to be qualified to assure new staff competency. Of the AARC 2015 and Beyond competencies, 36 of the selected 37 were most frequently assessed with the observation of performing task (check-off) option. Only 8 out of 37 competencies were not assessed by greater than 25% of respondents. The JC topics for assessment used mixed methods, most commonly computer based learning, lecture, and handouts. All JC topics in the survey were covered by greater than 95% of respondents except for early warning signs of a changing patient condition. Significant differences were found between competency assurance for both location and hospital type for several competencies. Probationary periods of 60-90 days were frequently reported as a timeframe where new employees were expected demonstrate competency prior to termination. CONCLUSION: RT departments are qualified and excelling in assessing competency for new staff therapists and should continue to incorporate advanced skills for the 2015 & Beyond initiative. Methods used to assess competency should incorporate those beyond traditional tests and check-offs. Departments should consider the use of simulators due to the added benefits of learning retention, critical thinking, and teamwork skills.
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Chapter 1: Introduction

The healthcare industry relies on hospitals to employ competent individuals providing care to patients in many different specialties. Respiratory therapy, formally established in the early 1970s, is a young profession when compared to nursing. Respiratory therapy lacks research that explores anything beyond basic topics of orientation such as simple recruitment techniques, basic competencies, and training costs. In order to better develop new employee orientation programs to verify competencies more effectively, it is important to describe the current trends used in the profession. There is a lack of research available that effectively describes the current state of Respiratory Therapy department orientation programs including: who assesses new staff competencies, the average timeframe, and whether orientations are individualized to the needs of the therapist, or if simply a one-size-fits all approach is used. Nursing has explored different methods to effectively ensure a new employee’s competency and individualized approaches to orientation.19-23

Nursing literature can prove to be useful for comparison with Respiratory Therapy topics due to the many similarities that the two healthcare professions share. Both act as supportive roles in bedside care for patients and work under the direction of
physicians. Respiratory therapy and Nursing both require licensure and credentials for employment. As for education, both professions offer two and four year educational programs. Respiratory therapists and nurses are responsible for administering medications to patients and provide treatment for a large scope of patient populations.

The American Association for Respiratory Care (AARC) initiated a taskforce that has determined a vision for competencies to be possessed by Respiratory Therapists in the near future. This taskforce is currently determining how to advance the profession through modifications to the educational system and to better equip the future workforce to acquire the needed competencies. Respiratory therapy managers must address issues related to the current workforce, competencies, and the needed knowledge, skills, and attributes.¹

Beyond the scope of competencies, industry standards are enforced by The Joint Commission (JC), which oversees hospital operations nationwide. However, the requirements do not prescribe a minimum required timeframes for orienting and training new employees. The standards leave it to each individual hospital to define the desired qualifications of staff working with patients. Hospitals are only required to verify education, experience, health screening, licensure, and registration or certification, and to conduct a criminal background check. Orientation must include safety topics, competency assessments for required job duties, infection control, and patient rights. Furthermore, staff is required to complete ongoing competency verification; however, the content is at the discretion of the hospital.²
Orienting and ensuring competence in new employees is vital to providing safe and effective care for patients. The purposes of this study were to describe how respiratory therapy department managers have structured their new employee orientations programs to verify competency (using the competencies outlined in the AARC’s 2015 and Beyond) and describe how these programs were designed to meet the JC standards.

Research Questions

1.) What is the structure of new employee orientation programs in RT departments?
   a. How long do orientation programs usually take?
   b. What educational resources are used during orientation?
   c. What are the qualifications for the individual responsible for assessing competence for new employee orientation?
   d. Prevalence for RT departments to have different orientation programs for newly hired staff therapists who:
      i. Hold the RRT credential versus CRT?
      ii. Are new graduates versus experienced therapists?

2.) What is the current new employee orientation practices related to The Joint Commission standards/recommendations?
   a. General topics & methods
   b. Staff responsibilities & competency

3.) What methods are used to assess competence for the AARC’s 2015 & Beyond recommendations used in new employee orientations?
a. Diagnostics

b. Chronic and Acute Disease Management

c. Evidence-Based Medicine & Respiratory Care Protocols

d. Assessment

e. Leadership

f. Emergency & Critical Care

g. Therapeutics & Applications

4.) What comparisons can be made with the data collected using the demographic questions:

a. Hospital Location

b. Hospital Type
Chapter 2: Review of Literature

Currently, there is a focus on increasing competency of workers in the healthcare workforce due to increasing patient acuities and demands on nursing and allied health professions. However, there is also an expectation to reduce costs and streamline work processes. This review investigated the components of workforce development as well as the issue of ensuring competency for existing and new staff, while maintaining cost effectiveness and productivity. This issue, although extensively researched in nursing, was addressed very little in respiratory therapy research. The following research databases were used: CINHAL, Pubmed, Medline, as well as the Ohio State University library resources. The following key words were used: workforce development, nursing, respiratory therapy, competency-based assessment, training, orientation, clinical assessment centers.

Related Research:

Workforce Development

In a study done by Million, the workforce development requirements for healthcare organizations in Wisconsin were evaluated due to a shortage of qualified workers. Vacant positions most commonly included registered nurses and nursing aides.
One limitation of the study included the resistance of many hospitals to provide data for the study. In the study region, one out of every four vacant jobs was a health-related occupation and 70% of those required specialized education. The survey results showed that the basic employment requirements included criminal background checks, drug testing, and physicals. Employers reported that the applicant pool available often lacked in required skills for each job set. These skills included soft skills such as team skills, communication, and critical thinking. Applicants also most significantly lacked professionalism skills such as attendance and finishing tasks. Applicant quality was found to be the biggest problem for employers followed by turnover rates. Adding to the frustration, employers were having a difficult time projecting future demands for employees. Additional issues that employers reported were a lack of ethnic diversity as well as a lack of male applicants. The study concluded that more research would be needed to accurately describe the complete picture; however, suggested that the survey should be conducted routinely to help track the workforce demographics.

This study provided insight into the importance of understanding the skill set of employees hired as well as the available applicant pool that hiring decisions were being made from. By understanding the demographics and education of employees, one can provide better-suited educational activities for employee and possibly reduce turnover rates and increase job satisfaction. Unfortunately the limitations of the study prevented the results from being more beneficial and revealing.
Laschinger et al\textsuperscript{4} studied the common phenomenon of new graduate burnout in nursing. Heavy workloads were difficult to handle for even veteran nurses and high levels of absenteeism were common among those with low job satisfaction. It was found that 66\% of new nurses experienced severe burnout and it was directly related to negative workplace environments, which resulted in high turnover rates. Turnover rates have been reported to be nearly 30\% in the first year and 57\% after two years. Laschinger et al explained that several things effected job satisfaction, including: supportive supervisors, coworkers, adequate resources available, and a sense of community. The study implied that if an employer provided opportunities for professional development, graduates were more likely to stay. Professional development provided an opportunity for graduates to gain respect and learn from more veteran nurses. A model looking at supportive work environments was derived from the authors literature review and studied. A survey was mailed to nurses in the field for less than two years. Another survey was sent to all registered nurses at several selected hospitals. The surveys pertained to measures of emotional exhaustion scales, empowerment perceptions, environment characteristics, and perceptions of quality of relationships with coworkers. The results showed managerial strategies that empower nurses are needed to prevent burnout. Nurses did not report high levels of incivility in the workplace. The study concluded that strong leadership is a vital factor for new graduate retention. Employers must ensure that new graduates were provided adequate resources and are empowered to adhere to their professional practice standards.
This study approached the subject of turnover specifically pertaining to new nurses and made conclusions regarding the different factors that produce high levels of burnout and poor retention of new hires. When considering orientation programs and professional development activities, keeping in mind these factors benefits employees and managers. The healthcare workforce is facing large shortages and cannot afford to have high rates of turnover. Managers must be informed on what maintains high levels of satisfaction in order to provide the necessary resources to employees. Recent graduates not only must be oriented and provided information on equipment and procedures, but must be integrated into the workforce and feel that they are a valued part of the team.

An article written by Leslie Feldman\textsuperscript{5} examined the future effects of the retiring aging population from the viewpoints of the healthcare industry and of nursing. The article suggested that hospitals should redesign their work flow to help maintain efficiency and staff satisfaction as the labor market will change drastically. It also suggested that hospitals work with managers to better lead multigenerational departments. The educational system which supports and provides competent graduates will be strained while trying to graduate enough students to supply the industry. The new generation of workers varied greatly from the baby boomers. Younger employees had different expectations of the work force including workplace flexibility, and they were found to be multi-taskers, more technology friendly, and were much more self directed.

This study explained how managers have the ability to predict the demands of the future and be able to tailor their practices to different generations. Often, training and
policies had a one size fits all approach. Workflow, procedures, orientation programs, and committees need to be redesigned to be able to create a more efficient workplace.

Respiratory Therapy

An article written by Orens et al\textsuperscript{6} researched the demand for Respiratory Therapists and the ability of the educational system to meet the needs of employers in northeastern Ohio. According to the article, vacant RT positions were expected to increase from 5.96\% in 2000 to 8.96\% in 2005. Part of the explanation for this trend lies in the fact that there were higher turnover and vacancy rates for RTs when compared to nursing, radiology technicians, and medical technologists. The turnover rate of RTs in 2006 was 16.4\%. After realizing the problems facing RT managers, this study was aimed at estimating the demand for RTs, the supply of new graduates from nearby programs, and developing recruitment strategies. The study approached the problem in two ways, Scenario A evaluated the need for to fill the full time equivalents (FTEs) currently. Scenario B determined the number of FTEs needed to fill projected vacancies accounting for turnover, determined how much recruitment was needed to meet demand, and finally determined how much program class sizes needed to increase to meet demand.

Results showed an average increase of 33.4 budgeted positions per year in NE Ohio. The average number of graduates each year from RT programs was 85 therapists. Based on these figures, the Cleveland Clinic determined they would need to increase recruitment strategies 33\% to eliminate vacancies in 4 years (a result of 72 recruited positions in 4 years). This would in turn effect other institutions nearby and their applicant pool. As a result, Cleveland Clinic worked to expand their clinical site capacity
and worked with programs in the area to help expand their class size. To stay competitive in recruitment, the Clinic expanded the clinical ladder program to incentivize and reward employees. Limitations of this study included excluding part time positions from the study and the lack of commentary on the percentage of new graduates who leave the northeastern Ohio area for employment elsewhere.

This study showed the effects that turnover and effort of recruiting that RT managers struggle with on a frequent basis. With high turnover rates, training new employees added to the expenses of the department along with the recruitment costs accrued in order to find RTs to hire. This study solidified a common problem for Respiratory Therapy and helped explain why keeping job satisfaction high and ensuring competence in employees is so important.

Workforce development has many key factors which effect employee morale, turnover rates, burnout, expenses for departments, and consume the daily duties of managers. Many of the struggles are unavoidable such as a retiring baby boomer population, coworker incivility, increasing demand, and workplace cultures. However, if these trends are not dealt with, turnover rates will continue to trend upward and managers will continue to devote large parts of the budget to orienting and recruiting new applicants. By providing educational opportunities and forming alliances with educational programs, employers will be proactive and create a culture where employees feel appreciated, have higher job satisfaction, and an incentive to stay.
Competency and Training Costs

Healthcare

In the article written by Bjork et al.,⁷ a model for estimating healthcare organizations professional development expenses was investigated and several unnamed hospitals in Norway were used to explain the models. The problems that faced these organizations included limited budgets while dealing with an aging population with more co-morbidities, high turnover rates, and more technology requirements to stay competitive. These factors made it difficult to justify any extra costs and the time required to provide professional development for healthcare workers. According to the authors, if the costs of the development activities, such as clinical ladder programs, were not explicitly monitored, then it was difficult to report in department budgets and therefore difficult to justify its importance. It was also reported that job satisfaction is directly related to the availability of educational opportunities provided by the employer. Bjork et al also found that when departments focused on limiting expenditures, the training program was the first to see cuts. While studying four different hospitals, nurse administrators reported they were not prepared or trained to plan, execute, and assess policies for ensuring competence among their employees. When the study compared continuing professional development costs to turnover rates, mix results of both positive and negative cost-benefit ratios were found; however, they found a positive cost-benefit ratio when comparing costs of retention strategies with turnover rates for new graduates. This study provided a definition for cost as the time dedicated by employees and
personnel, actual monetary payments, and other expenses related to utilities or equipment (auditoriums, meeting rooms etc…). The study considered the cost of time spent by program coordinators or managers as they planned, organized and implemented their program. Often, costs of “supporting personnel” were not taken into account in the budget including IT personnel who wrote computer programs and physicians assisting in teaching. The hidden costs were present in each hospital studied.

This study was important because it addresses the issue of hidden costs and lack of budgets that include accurate professional development costs. The study provided examples of resources and items normally overlooked in planning for costs of different activities. It explained the importance of justifying these development activities with financial figures in order to be able to execute an orientation or clinical ladder programs efficiently.

Nursing

In an article written by Kedge and Appleby,⁸ the importance of competency in the nursing profession was evaluated. It has been, and currently is, an expectation in modern nursing practice that nurses will pursue continuous professional development throughout their career, which requires a certain degree of curiosity. The article explored the theoretical explanations as to what drives individuals to pursue competency and the varying levels of curiosity that result. The article expressed that when competence is achieved, curiosity was more likely to result and motivated the individual to continue pursuing continuous development. The article stated that competence must be understood on an individual basis because it is vital that all nurses merely work within
their limits of their own competence. Competence has many components including functionality, performance, level of ability, degree of knowledge, interpersonal abilities, as well as the ability to adapt. The article challenged that the current educational setup for training student nurses has not promoted a high level of quality. Currently, students move from clinical area to clinical area quickly without the ability to “master” each different area. Every clinical area has different requirements, and it was difficult to reinforce what competence entailed for each clinical area. It was important to make a student feel that they are an important part of the clinical decisions as well as emphasizing the positive competence that they have executed. If the student felt as though they are considered more than free labor, they were more likely to have a higher degree of curiosity which motivated further drive to learn and develop quality and competence in practice.

This article contributed an interesting viewpoint on competence and its role in healthcare, specifically nursing. According to the article, competence is more than just knowledge; further, its components affect patient care and outcomes. This should be kept in mind when developing any continuing professional development or orientation programs. Different clinical areas have different criteria of competence; therefore, a cookie cutter approach should not be applied to an orientation program. This was especially applicable for a profession such as Respiratory Therapy, where it is commonplace for therapists to be floated in varying areas of the hospital. Therapists must be “competent” in different areas with specific knowledge, equipment, and patient conditions in order to truly be considered “experts” and provide quality care.
Reiter et al\textsuperscript{9} addressed the issue of high orientation costs of new nursing graduates and proposed that by utilizing a program exit exam in order to measure entry level competence, better hiring decisions were made. Currently, mentorships and internships have been used to orient new graduates under supervision from veteran nurses. Critical thinking, ability to prioritize, communication, ability to perform procedures and administer medication were all evaluated. According to literature, costs have escalated rapidly from \$1,000-3,000 in 1987 for one new nurse to \$14,600 in 2004. The 2004 figure did not include the turnover costs. These figures included costs of recruitment, overtime paid for coverage, lost productivity, orientation of replacement employees, and customer satisfaction. The study was a descriptive, correlational design which used scores of the exam and compared them to workplace competencies. The HESI Exit Exam predicted the success on the RN exam with 96\% accuracy. The study concluded that nurse managers could use the HESI score to determine how well the new graduate could think critically and apply nursing principles to patient scenarios.

The ability to use an exam to indicate workplace success was an intriguing idea, especially when dealing with such expensive orientation costs. Although the test was shown to be 96\% accurate in predicting RN exam success, more research should be done to examine how closely it relates to retention rates and true workplace success. This study presented positive news for nurse administrators who are searching for ways to save money and reduce risky investments. Similar research could be done with the pass rate of the RRT in respiratory therapy to workplace competence.
A concept analysis written by Donna Scott Tilley explained the difficult task of defining and measuring competency. The problem existed for health care organizations attempting to ensure health care workers remain current with all new best practice literature. A literature review was executed from 2001-2006 to provide an in depth basis to follow knowledge, skills, and attitudes throughout a nursing career. A common issue observed for new graduates was the inability to care for complex acute cases with demanding treatment regimens. The reason was attributed to the lack of funding for educational programs to update curricula and limited access to academic medical centers. The largest issue identified was how one determines which competencies were most important, what level should be expected to be demonstrated, and how to effectively teach them. It is currently assumed that a nurse is competent upon their initial licensure by the state and is not refuted unless otherwise noted thereafter. Presently, lectures and conferences count as continuing education; but, there is no evidence that these methods are effective in changing clinical practice or patient outcomes. An accepted reason for the lack of true competency methods was the inability to define competency completely. A model was examined in this study in which a nursing college developed a digital portfolio that allowed the students to tracking their progress and experiences throughout their education. As this was utilized by students, faculty also contributed to the portfolio with comments and suggestions. The program required for students to “master” lower level concepts before advancing to more complex materials. This data provided graduates the ability to create electronic resumes for employers to display their level of competence.
This study presented the issue of a lack of confirmation of competency in the healthcare industry. Once initial licensure is granted, competency was assumed to exist until an individual commits an error, which can place patients in danger of medical errors. The Joint Commission requires a minimal level of competency assurance that is mostly left to the employers’ discretion. This topic warrants further investigation. Healthcare managers must continually be creative in finding ways to ensure competence in their staff without having a true definition or metric for this.

In the study by Baxter,11 educators are provided with information regarding orientation programs and a definition of what provides a “good” orientation for nurses, especially new graduates. This study provides a framework to outline the current practices of orientation in hospitals for nurses. Once again a high turnover of new nurse graduates in the first year is attributed to dissatisfaction, inadequate training, and lack of support. The literature suggests ensuring a thorough orientation into specialty areas will help counteract the turnover. The terms preceptor and mentor are described as key individuals who provide experience and an individualized experience to the nurse experiencing the orientation. An average length of orientation for nurses varies from 8 weeks to 18 months. The majority of authors in the literature describe a 12-week structured program with additional time for specialty areas. The article continues by explaining the importance of the quality of preceptor in an orientation. These individuals teach technical skills, socialization, and promote critical thinking.

With respect to competency-based orientations, Baxter describes a basic 12 week orientation in which the RN demonstrates competency through knowledge, skills, and
personal attributes through consistency. Implications of this study indicated that an orientation period of 12 weeks is required at minimum for competency. Extending this time will help integrate into the social structure, learn skills, and learn to work within then new work environment. There was a lack of information regarding the impact of generational differences on the process of orientation.

Respiratory Therapy

Respiratory Therapy is a much younger profession than nursing, and according to author Dean Hess, there are many challenges facing the profession to ensure competency in the 21st century. Respiratory Therapy has evolved from an on-the-job-training to formally educated and licensed clinical professionals. Many components of evolving the profession must be addressed in order to stay relevant, including: adopting protocols, implementing evidence-based care, utilizing clinical practice guidelines, creating new roles, continuing education development, along with many others. Therapists must become more of a technical and clinical consultant rather than simply giving treatments and checking ventilators. Protocols would allow therapists to modify or discontinue care when appropriate, and would be derived on evidence based medicine. Hess also proposed that therapists move away from being task oriented, and instead be more involved in actual patient assessments, providing care to the patient, as well as educating other clinicians at bedside. By being more involved in the community, therapists can improve their public image, gain respect, and become a more valued part of a healthcare team.
This article brought to light the changing expectations and requirements for respiratory therapists and the change in mindset a therapist must have. By evolving and being more involved in individualized plans of care and protocols, different training and education will have to be developed in order to prepare therapists for these roles. Managers should expect employees to go above and beyond what has been expected in the past. These new requirements may increase costs in the short-term, but may benefit the RT departments greatly in the future.

On a similar note, Barnes et al\textsuperscript{1} projected the new competences that will be needed by graduate RTs in 2015 and beyond. The professional organization for the RT field, The American Association for Respiratory Care (AARC), established a task force in order to identify changes to the expectations and roles of RTs in the future. With recent healthcare laws passed, and the shift in mindset to cutting healthcare costs, the AARC was determined to find what educational shortfalls exist and how they can be changed. There will be a shortage of RT educators in the future as the aging workforce begins to retire. Newer technology will be utilized, new therapies developed, and new data requirements utilized. It is expected that a wider variety of medications will be aerosolized by therapists, requiring more intensive pharmacology education. Home care is expected to grow, requiring different skill sets by new graduates. The task force was determined to develop definitions of competencies expected to grow in the categories of diagnostics, disease management, evidence-based medicine/protocols, patient assessments, and leadership. It was determined that new graduates must be competent in the areas of prioritizing, anticipating, trouble-shooting, communicating, negotiating,
decision making, and re-evaluating situations. In the future, the accrediting agency for RT programs (CoARC) will have to adjust its criteria as RTs are expected to expand their roles in healthcare.

This article presented a thorough look into projecting future requirements and demands of the changing healthcare system. With an aging population and an emphasis on lower costs, managers and educators will be forced to adjust competency assurance and policies. Therapists will be expected to do more with less time and money. Assuring that new graduates are prepared to handle the projected requirements will alter orientation programs and their roles at the bedside.

In further literature on the subject of training RTs, Walker discussed the use and benefits of computers for training Respiratory Therapists. Today in the field, RTs must continually learn and update their clinical knowledge, which can be a challenge for RT managers to implement staff educational programs. The overwhelming materials on evidence-based medicine made it difficult to determine what is important and needed to be passed on to RTs within a department. This information was often conveyed in “classroom-style” in-services which require therapists to spend time away from the bedside. This increased departmental costs and may not be an effective way for therapists to learn and retain materials. An increasingly valued benefit employers can provide is continuing education on new procedures and technology in the profession. It was therefore in an RT department’s best interest to recruit new employees using new technologies applied in their departments and orientation processes. This article cited the cost of orienting a new nurse to an intensive care unit as much as $200,000. And the
turnover rate added to departmental costs—as new nurse graduates have had about a 92% turnover rate since 1997. These graduates cited the inadequate preparation by the employers during orientation as the main reason. By improving the clinical training program, sufficient training helped ease new graduates into the workloads and reduced turnover rates. The study concluded that incorporating IT based materials into orientation decreased the cost of training employees.

This article contributed to the topic of how to make orientation more cost effective by utilizing new methods or materials. By expending more effort into the orientation program, and a higher up front cost, employers saved money in the end by reducing turnover rates and preparing more competent staff. This article advocated taking orientation into the 21st century by using the technology available and educating employees with more visual methods rather than the routine lecture formats.

Debbie Bunch14 describes four RT education programs which have incorporated the use of simulators into their curriculum in order to reap the benefits they add beyond the traditional test or check-off. Collin College in Texas has made the program multidisciplinary as it has evolved. The prepared scenarios incorporate EMS, transport, RT, RN, and surgical technology. The faculty act as a physician and students use this safe environment without instructor interference to learn from the debriefing sessions from the recordings of the sessions. Students have improved critical thinking abilities and have scored higher on the NBRC clinical simulation exams. Other benefits the outlined programs explained involved increased confidence, reduced cost through collaboration with partnering hospitals or programs, and less time restraints than experienced in clinical
care. One program director suggested than this can be ideal for teaching adults because adults learn by doing.

This article outlines a growing trend in the use of simulators in educational programs but the use of this method can be translated into adult learning because of the hands-on-learning it can provide during orientation for newly hired staff therapists.

Walsh et al\textsuperscript{15} conducted a survey describing the orientation of new therapists into the neonatal/pediatric environment. Similarly, educators and managers from the AARC sections acted as the survey population. The purpose of the study was to provide insight into the adequacy of preparation of RTs entering the children’s environment, and the length of orientation as well as the methods used. Sixty-three percent of respondents disagreed that AS degrees prepared a new RT, and 42\% disagreed that a BS degree prepared a new RT for work in a Children’s environment. The majority of respondents also agreed that RT departments in Children’s hospitals should have a dedicated RT educator as well as that simulation is an effective tool for training RTs. However, respondents also indicated they did not think the cost of using simulators is worth the benefits.

Although this article addresses simulators and orientation practices in pediatric/neonatal environments, the study reflects the attitudes and use of alternative methods of assessment such as simulators. This gives backing to the idea that simulators are currently used and discussed in the field of respiratory therapy; however, cost plays a huge role in the decisions and ability to use new equipment for educators and managers of the Respiratory Therapy profession.
In an article written by Smith, the increasingly problematic issue of recruiting and retaining competent RTs was explored. A school in Washington State finds that it was most beneficial to create strong clinical affiliations with educational programs in order to help students become familiar with their policies and procedures and in turn recruit the students post graduation. In order to attract these graduates, interview and resume workshops were held by the RT department to form a strong working relationship. The article discussed the difficulty that lies in determining a specific price for recruiting, orienting, and retaining a therapist. It is estimated that this Washington hospital spent approximately $30,000 to fill one vacant position. This price amount took into account using temporary workers, cost of advertisements, time to review applications and resumes, interview, and train the newly hired therapist.

This article was specifically dedicated to discussing the high cost of recruiting and retaining respiratory therapists which was not reflected much in the literature found. The high cost of this common problem indicated a need to develop a more efficient way of recruiting, retaining, and training respiratory therapists. More in depth research may need to be done to develop a more precise dollar amount in order to find where the problems exist.

Stoller et al addressed the impact of turnover on Respiratory Therapy departmental costs. High turnover forced departments to spend more on recruiting and orienting new employees to fill vacant positions. This study, done within the Cleveland Clinic, calculated the costs associated with training a new therapist. A detailed training schedule was outlined and included three weeks of orientation. Week one was comprised
of hospital orientation tour, review of RT policies, Clinivision training, and working with a therapist practicing the computer applications. Week two began with a skills check completion and more computer orientation. Finally, week three allowed the new employee to begin limited workloads with a preceptor. This study sent questionnaires to different RT departments within the hospital system in order to evaluate turnover rates of full-time RTs. Training costs were derived from the training schedule, and included wages of supervisors and preceptors, equipment costs such as handbooks, and the cost of the full workload that the new employee is unable to cover. Of the eight organizations that participated, an 8% turnover rate was reported. The training cost of an RT in the Cleveland Clinic was found to equal $3,447.11 each. Extrapolating these results shows that if 3 RTs left each year would cost a department $51,707 over 5 years. Recent studies have shown the cost of training a new nurse is approximately $4,720.03. This was greatly dependent on the extent of the orientation. It was also noted by this study that it did not include the cost of training non-full time employees; however, it was estimated the cost to train these individuals would be nearly the same.

This study provided an invaluable look at the high cost of turnovers within an RT department. Depending on the size of the hospital and the extent of the orientation provided, training was a huge expense for a department and therefore should influence managers to maintain high satisfaction among RT employees. Further research can be done to expand this study to include full and part time employees into the training figures, and determine whether there was a difference between training costs in these two employee statuses.
Finally, Van Scoder\textsuperscript{18} conducted a survey to describe respiratory therapists’ attitudes towards recredentialing. Recredentialing allows for RTs to keep their credentials by re-taking the credentialing exam or earning continuing education credits. The study described the lack of uniformity that exists across the states for requirements to maintain credentials and/or licensure. The literature review performed by Scoder did not indicate that continuing education improved patient outcome. Of the respondents, 82% reported that their employer had a CE requirement. While examining results, a statistically significant difference was found between CRT’s and RRT’s responses. Results showed that, overall, most therapists did not support mandatory recredentialing and did not believe that it was an effective way to improve patient care. Results were split when asked if recredentialing benefited the profession. Seventy-three percent of those who responded believed that the NBRC should not be responsible for ensuring competency. The study only sent questionnaires to AARC members; therefore, it was important to note that these results may not be accurate for RTs who were non-members.

This study added the subject of recredentialing and RT attitudes into the context of competency. It was interesting to discuss the topic of charging for recredentialing when it is a mandatory requirement, yet there was a lack of evidence showing that recredentialing (whether retesting or CE) has any impact on patient care. Therapists in the study reported that their employers already had a requirement for CE; therefore the redundancy of the NBRC, the state licensing board, and the employer requiring proof of continuing education could be considered a burden on therapists. Further research should be done to evaluate opinions of non-AARC members to ensure accuracy of these results.
These articles discussed addressed the issue of ensuring competency in healthcare professions of nursing and respiratory therapy. The difficulty in accomplishing this lied in the inability to define competency completely. The literature that existed on this topic often disagreed on which was the best way to educate HCWs and how to truly test for competency in educational programs, as well as employment. Ensuring competency was also very expensive for departments. Training and orienting employees was very time intensive and was increasingly costly, while high turnover rates compounded the issue. Managers of nurses and respiratory therapists were caught in the middle of cutting costs while not sacrificing the quality of their employees’ skills.

**Competency-based Performance Assessment Programs & Associated Costs**

*Nursing*

Dorothy del Bueno, Barker, and Christmyer\(^{19}\) investigated the implementation of a competency-based orientation program for nurses. According to this study, a large medical center director of staff development cited a cost of $500,000 to train 150 nurses during a summer. In addition to the cost of training these new employees, often overlooked is the cost of “lost opportunity” which was the time lost for other employees to be educated due to the instructor’s time commitment to the newly hired individuals. Competency-based models shared several key components such as an emphasis on outcomes, self-directed activities, flexibility of time, and assessment of previous knowledge or learning styles. Del Bueno explained that the most difficult part of implementing such a program was obtaining buy-in from managers and personnel who would be most affected by it. The largest change from a traditional orientation program
entailed the uncertainty which was usually non-existent in the usual method. Usually, orientation directors scheduled specific times to precept and train, and a specific timeline that the orientation would last. However, in a competency-based program, orientees selected their own assignments based on what they felt they needed. Clinical and classroom time was as flexible as the orientees needed—including the duration of training. Implementing such a program required complete training of preceptors and staff as well so they were aware of what to expect. Nurses found that this new program allowed them to play more of a counselor role instead of a teacher role. They were able to help new employees identify where their skill set fell short in order to help them spend more time in those areas. It was suggested that when implementing such a program, begin with a small group in order to work out any problems. Results of the study showed a reduction by 35% in learner time in the nonclinical forum. It was noted that the range of 2-6 weeks for the newly hired nurses to complete their competencies successfully allowed more experienced nurses to complete their orientation faster than new graduate nurses, who needed more time to be acclimated.

This article made a compelling argument for competency-based orientation programs. Departments saved money by not utilizing the cookie-cutter approach, and instead provided the newly hired individuals with the resources and experience they needed. Orientees felt more prepared when they were given a full workload if they had the time to feel comfortable and learn what they felt they needed. Experienced nurses did not have to endure long orientations that included unnecessary and redundant materials which they were already proficient with.
In another article by Del Bueno, and authors Weeks and Brown-Stewart, a more detailed look at the finances of orienting new employees was addressed. The study stated that indirect costs for precepting and orienting nurses ranged anywhere from $3,000 to $12,000 per nurse. This amount was comprised of the non-productivity that training entailed and not the recruiting and the costs associated prior to hiring an employee. The problem existed in the lack of a valid way to determine one’s level of competence prior to the training program. Del Bueno et al suggested that assessment centers possessed the answer to defining the individual’s abilities and shortfalls in order to provide an individualized approach. These assessment centers involved a comprehensive and systematic process that could help identify a baseline of a new employee’s skill set, and allowed the orientation manager to develop a plan to address problem areas. Assessment Centers are used by over 2,000 organizations in the United States. Assessments included job-related simulation exercises, multiple administrators of the training, and compiling multiple assessments to form a baseline. Personnel costs usually comprised 50%-60% of departmental budgets. Productivity was a key measure that could be affected by orienting new employees. Currently, many tests are administered in hospital orientation programs to test knowledge of pharmacology and other subjects, as well as minimum score requirements on credentialing exams. These tests may lack validity to predict success in clinical settings and employment. Probationary and orientation programs were not cost-effective and may not serve the best interest of employees. The assessment center approach resulted in other benefits such as increased satisfaction among coworkers, development of peer evaluation skills, and better staff development of
preceptors. The effectiveness of the assessment center approach existed in the ability to reduce subjectivity of evaluations through the use of multiple assessors. Subject matters emphasized include critical thinking, technical ability, as well as interpersonal relation skills. Unfortunately, startup costs ranged from $30,000 to $100,000 when including reliable testing methods, equipment, and training of staff. Authors suggested that this cost may only be justified in large hospitals, and can take 3-6 months to implement.

The Assessment Center article, although possibly out of date, provided valuable information on the cost and time requirements in order to implement such a program. The article contained a very thorough description of the different components and benefits of this type of assessment method. The startup cost may be too large for some RT departments to justify in their budget. However, those with competency issues or high turnover rates may benefit from this system. A more thorough study with specific examples, including application within the RT field, may provide a more beneficial outlook on assessment centers.

In a study done by Bargagliotti et al., the switch from a process based evaluation to a competency based assessment system was examined while taking into account students and faculty in an educational setting, as well as managers and staff in the organizational setting for nurses. Determining actual clinical abilities for students and clinicians had been difficult to describe as an exact science. Most commonly, a process based evaluation system was used, which combined retrospective reports to determine actual competence; however, this study aimed at exploring the implementation of a more accurate evaluation process that used more objective criteria. Bargagliotti et al defined
this competency-based performance system as one that used predetermined standards under protocols and predetermined conditions. In an organizational setting, there were a multitude of stakeholders including the administrators, physicians, human resources, patients, payers, and the state boards of nursing. The article stated that managers had an important gatekeeper function to ensure competency of their employees so that patients are protected from unskilled nurses. Although the study contained a thorough explanation of the educational system and its uses for the competency based system, the organizational discussion was much more applicable to this literature review’s purpose. From a staff nurse’s point of view, according to Bargagliotti et al, annual evaluations that rely on cumulating single events over the year caused high anxiety and this could be avoided through a competency-based system. Due to the ever-changing healthcare environment and equipment, staff patterns, and patient acuity, nurses must be informed what is expected and the standards they will be evaluated on. Nurse managers had a difficult role to play and the margin of error that they accepted varies widely from organization to organization based on the patient demographics. Standards must be consistent in a competency-based system, and therefore, all policies and input from staff must be in agreement. To reduce the anxiety that accompanies a major change such as switching the competency assessment process, the study suggested hosting a multitude of workshops to help staff adjust and feel comfortable with the process. Overall, to reduce threats of the implementation of a competency-based evaluation program, it was vital to take into account all stakeholders effected by the new process and work to reduce anxiety by addressing their concerns.
This article effectively identified stakeholders in competency-based evaluations in the nursing spectrum. It was a useful tool in providing another way to “troubleshoot” and seamlessly integrate a new evaluation process into a work environment. Unlike a lot of the articles on this subject, it took into account the perspective of staff as well as managers which is helpful. However, it provided more of a theoretical approach and lacked concrete examples to help the reader fully understand the competency-based assessment system process.

_A Performance Based Development System_, by Anthony and del Bueno, was a study that addressed the issue of orienting part-time staff nurses and the difficulty that the lack of flexibility often created. Often, part-time employees hold two or more jobs or have commitments to school or families which made it difficult for scheduling orientation. The Memphis hospital studied required part-time nurses to attend an orientation that took place over several days (non-consecutive), pass a pharmacology test, and work a day alongside a clinical instructor. Unfortunately, the fragmented, unorganized orientation process created financial difficulty and was ineffective for the new employee. Nurse managers and educators brainstormed and developed a new system that involved new requirements for only part-time status employees including: an in-depth interview, and a Performance Based Development System that included assessments on technical, critical thinking, and interpersonal skills as part of an individualized orientation. The assessment would last three and a half hours and works around the part-time nurse’s schedule. The assessment included clinical judgment video simulations. After a baseline assessment is completed, the data was compiled and
feedback was given to the nurse and nurse managers. Based on the needs assessment, an action plan was developed and a clinical observation day was scheduled once the medication test was complete.

The study was a result of an identified scheduling issue with part time nurses and the ineffectiveness of the cost and orientation process. By classifying part-time nurses as a different group, they were able to develop a separate system that better addressed the flexibility issues and were better able to identify the clinical areas that needed to be addressed more quickly. This was a valuable study that addressed part-time employees which is rare among the literature found. Most studies merely examined the effect on full-time employees and overlooked the scheduling issues that most part time positions can create. This study design could also be used in future research and applied to full-time employees.

A study conducted by Klein\textsuperscript{23} addressed the issue of developing and retaining new graduate nurses due to the extra strain placed on veteran nurses when new graduates had taken full workloads after completing orientation. The new graduates required additional support once orientation was completed, and both veteran and new nurses were experiencing burnout causing turnover rates to increase. Nationally, roughly 35% to 60% of new nurses leave within a year post-graduation. This study decided to implement a “floating preceptor” to reduce the strain on existing nursing staff, and required hiring 2.1 full-time equivalents to cover this need. In order to train the floating preceptor, a standard program was developed that focused on communication and giving feedback, core competencies, and the evaluation scoring system. The preceptor would make
contact with the new graduate nurse at least two times during a shift. Assessments had a maximum score of 3, and once a new graduate attained this level, the preceptor met with the new nurse to determine if it was time to “graduate” from the program. Over fourteen months, 140 nurses completed this program. As a result of the new system, nurse managers had felt more comfortable hiring newly graduated nurses. Results showed that new graduate nurses required 247 days of orientation and time with a floating preceptor to score well on all components in the evaluation (critical thinking, technical skills, and interpersonal communication). It was found that effective communication with physicians, accessing resources, and identifying when a patient’s condition was worsening were the three areas that were consistently the hardest for the new graduates to develop. As a result of implementing this program, first-year nurse retention is now 82%.

This study approached competency-based orientation in a different way than the other articles discussed. The existing orientation program was kept in place; however, a new preceptor position was created which helped provide a resource for new nurses, decreased the strain on veteran nurses, and took away the “anxiety” that most new graduates felt. Although this was successful for the hospital studied, many hospitals may find it difficult to afford two additional FTE positions in order to make this system possible. These extra FTEs may also negatively affect department productivity which is closely monitored in some departments. However, a cost/benefit ratio might be useful in determining if the savings as a result of decreased turnover helps to cover the cost of the new preceptor positions.

*Respiratory Therapy*
It is important to note that there was an overwhelming lack of literature pertaining to Respiratory Therapy’s use of any Competency-Based Assessment evaluations. Currently, a process-based evaluation process, as well as a standard time-regulated orientation process is very common in the healthcare world today. These articles provided a solid argument for implementing a competency-based evaluation process in order to reduce turnover, increase competency, and decrease costs for departments. A competency-based approach was a more individualized program used to diagnose the shortfalls of new hires and targeted those areas in orientation in order to prepare them to take full workloads once orientation was completed. Most of the literature was from the nursing profession and little could be found that applied to Respiratory Therapy. This provides for an abundance of future research opportunities.

The articles discussed all related to ensuring competency and cost-effectiveness in the healthcare workforce. Ensuring competency was not only a duty for managers, but for healthcare workers as well. In the current healthcare climate, when cost reduction without sacrificing quality is expected, departments must be creative in how they do business. Much of the research is based in the nursing profession and calls for the application of these studies in the RT field.
Chapter 3: Methods

Study Design & Procedure

This study was executed through the use of survey research methodology to gather information to address the research questions. The “Survey Monkey” website was used to provide the electronic survey instrument (Appendix A) to assess orientation structure and implementation. The email invitation included the purpose of the survey, deadline information, assurance of confidentiality, the survey link, and contact information for the researchers (Appendix B). A request was made in the email for the recipient to forward the survey to the individual in the department who is responsible for new employee orientation. A follow-up email reminder was sent three weeks later via email to the participants as a reminder to complete the online survey by the deadline (Appendix C). After the deadline, surveys not completed were considered non-respondents. A firewall issue prevented some participants from accessing the online survey format. These individuals were asked to complete hard copies of the survey and either faxed or emailed the completed survey to the researchers.
**Population & Sample Size**

The list serves for the AARC’s Management and Education Section Memberships were used to distribute the survey invitation email, which totaled 2,907 members. AARC members can elect to pay a premium for section memberships of their choosing. These sections include the target population of respiratory therapy directors, managers, and hospital educators within the United States.

**Instrument & Data Analysis**

Survey questions included demographic questions regarding location, department size, hospital size, and specific components and topics of the orientation program relating to JC standards and the 2015 competencies, staff qualifications, and time spent in orientation. Thirty-seven of the sixty-nine competencies outlined in the 2015 & Beyond\(^1\) initiative were selected due to their general applicability to the focus on acute care hospitals for this study, and because they possessed a measurable component that could be assessed in an orientation program. All seven major competency areas were represented. The JC standards were derived from the Human Resources section of the 2010 Hospital Accreditation Program Standards.\(^2\) All standards that applied to Respiratory Therapy departments and which could be included as a topic in orientation programs were included in the survey. In order to test for validity of the survey instrument, a field test was completed. The field test feedback was used to determine the average time to complete the survey as well as ensure ease of understanding for survey questions.
Data were uploaded and analyzed by SPSS (Statistical Package for the Social Sciences). Data analysis included descriptive statistics including mean, median, standard deviation, and ranges. Comparative analysis, including t-tests and chi-squares, were used to determine differences among hospital types and locations for the 2015 goals & JC topic assessment methods. Competencies that had greater than 10% differences between location and type of hospital were then analyzed using a Chi-Square test. The alpha level was set at a priori at 0.05.
Chapter 4: Article

Abstract

BACKGROUND: The healthcare industry relies on hospitals to employ competent individuals providing care to patients in many different specialties. There is a lack of research available that effectively describes the current state of Respiratory Therapy department orientation. The purposes of this study were to describe how respiratory therapy department managers have structured their new employee orientations programs to verify competency (using the competencies from the AARC’s 2015 and Beyond) and describe how these programs were designed to meet the JC standards. METHODS: This study was executed through the use of survey research methodology and used the listserves for the national Management and Education Section Memberships of the AARC to distribute the survey invitation email, which totaled 2,907 members. A request was made in the email for the recipient to forward the survey to the individual in the department who is responsible for new employee orientation. Thirty-seven of the sixty-nine competencies outlined in the 2015 & Beyond initiative were selected. The JC standards originated from the Human Resources section of the 2010 Hospital Accreditation Program Standards. RESULTS: From 449 respondents who accessed the online survey,
333 met the inclusion criteria. Fifty-five percent of respondents described their hospital type as a community hospital, 30.1% as Academic/Teaching, 4.0% as Children’s, and under the other option respondents listed types of hospitals as: LTACHs, specialty, and cardiology. Forty-two percent of respondents described their hospital location as urban, 30.6% as suburban, and 26.9% rural. Two hundred twenty-six (77%) respondents indicated newly hired staff therapists receive individualized orientation programs based on their needs or passed experience. Individuals responsible for conducting newly hired staff therapist orientation reported that additional training had been completed in order to be qualified to assure new staff competency. Of the AARC 2015 and Beyond competencies, 36 of the selected 37 were most frequently assessed with the observation of performing task (check-off) option. Only 8 out of 37 competencies were not assessed by greater than 25% of respondents. The JC topics for assessment used mixed methods, most commonly computer based learning, lecture, and handouts. All JC topics in the survey were covered by greater than 95% of respondents except for early warning signs of a changing patient condition. Significant differences were found between competency assurance for both location and hospital type for several competencies. Probationary periods of 60-90 days were frequently reported as a timeframe where new employees were expected demonstrate competency prior to termination. CONCLUSION: RT departments are qualified and excelling in assessing competency for new staff therapists and should continue to incorporate advanced skills for the 2015 & Beyond initiative. Methods used to assess competency should incorporate those beyond traditional tests and
check-offs. Departments should consider the use of simulators due to the added benefits of learning retention, critical thinking, and teamwork skills.

*Key Words:* Respiratory therapy, respiratory care, orientation, training, competency
Introduction

The healthcare industry relies on hospitals to employ competent individuals providing care to patients in many different specialties. Respiratory therapy, formally established in the early 1970s, is a young profession when compared to nursing. Respiratory therapy lacks research that explores anything beyond basic topics of orientation such as simple recruitment techniques, basic competencies, and training costs. In order to better develop new employee orientation programs to verify competencies more effectively, it is important to describe the current trends used in the profession. There is a lack of research available that effectively describes the current state of Respiratory Therapy department orientation programs including: who assesses new staff competencies, the average timeframe, and whether orientations are individualized to the needs of the therapist, or if simply a one-size-fits all approach is used. Nursing has explored different methods to effectively ensure a new employee’s competency and individualized approaches to orientation.1-5

Nursing literature can prove to be useful for comparison with Respiratory Therapy topics due to the many similarities that the two healthcare professions share. Both act as supportive roles in bedside care for patients and work under the direction of physicians. Respiratory therapy and Nursing both require licensure and credentials for employment. As for education, both professions offer two and four year educational programs. Respiratory therapists and nurses are responsible for administering medications to patients and provide treatment for a large scope of patient populations.
The American Association for Respiratory Care (AARC) initiated a taskforce that has determined a vision for competencies to be possessed by Respiratory Therapists in the near future. This taskforce is currently determining how to advance the profession through modifications to the educational system and to better equip the future workforce to acquire the needed competencies. Respiratory therapy managers must address issues related to the current workforce, competencies, and the needed knowledge, skills, and attributes.6

Beyond the scope of competencies, industry standards are enforced by The Joint Commission (JC), which oversees hospital operations nationwide. However, the requirements do not prescribe a minimum required timeframes for orienting and training new employees. The standards leave it to each individual hospital to define the desired qualifications of staff working with patients. Hospitals are only required to verify education, experience, health screening, licensure, and registration or certification, and to conduct a criminal background check. Orientation must include safety topics, competency assessments for required job duties, infection control, and patient rights. Furthermore, staff is required to complete ongoing competency verification; however, the content is at the discretion of the hospital.7

Orienting and ensuring competence in new employees is vital to providing safe and effective care for patients. The purposes of this study were to describe how respiratory therapy department managers have structured their new employee orientations programs to verify competency (using the competencies outlined in the AARC’s 2015 and Beyond) and describe how these programs were designed to meet the JC standards.
Methods

Study Design & Procedure

This study was executed through the use of survey research methodology to gather information to address the research questions. The “Survey Monkey” website was used to provide the electronic survey instrument (Appendix A) to assess orientation structure and implementation. The email invitation included the purpose of the survey, deadline information, assurance of confidentiality, the survey link, and contact information for the researchers (Appendix B). A request was made in the email for the recipient to forward the survey to the individual in the department who is responsible for new employee orientation. A follow-up email reminder was sent three weeks later via email to the participants as a reminder to complete the online survey by the deadline (Appendix C). After the deadline, surveys not completed were considered non-respondents. A firewall issue prevented some participants from accessing the online survey format. These individuals were asked to complete hard copies of the survey and either faxed or emailed the completed survey to the researchers.

Population & Sample Size

The list serves for the AARC’s Management and Education Section Memberships were used to distribute the survey invitation email, which totaled 2,907 members. AARC members can elect to pay a premium for section memberships of their choosing. These sections include the target population of respiratory therapy directors, managers, and hospital educators within the United States.
Survey questions included demographic questions regarding location, department size, hospital size, and specific components and topics of the orientation program relating to JC standards and the 2015 competencies, staff qualifications, and time spent in orientation. Thirty-seven of the sixty-nine competencies outlined in the 2015 & Beyond\textsuperscript{1} initiative because they possessed a measurable component that could be assessed in an orientation program and were general topics that would be frequently covered in an acute care setting. All seven major competency areas were represented. The JC standards were derived from the Human Resources section of the 2010 Hospital Accreditation Program Standards.\textsuperscript{8} All standards that applied to Respiratory Therapy departments and which could be included as a topic in orientation programs were included in the survey. In order to test for validity of the survey instrument, a field test was completed. The field test feedback was used to determine the average time to complete the survey as well as ensure ease of understanding for survey questions.

Data were uploaded and analyzed by SPSS (Statistical Package for the Social Sciences). Data analysis included descriptive statistics including mean, median, standard deviation, and ranges. Comparative analysis, including t-tests and chi-squares, were used to determine differences among hospital types and locations for the 2015 goals & JC topic assessment methods. Competencies that had greater than 10% differences between location and type of hospital were then analyzed using a Chi-Square test. The alpha level was set at a priori at 0.05.
Results

Demographics

This survey was conducted using national list-serves, and all nine of The American Hospital Association’s hospital regions were represented in the results. From a total of 2,907 emailed survey invitations, 333 respondents met inclusion criteria out of 449 respondents who accessed the online survey. One hundred eighty-one (55%) respondents described their hospital type as a community hospital, 98 (30.1%) as Academic/Teaching, 13 (4.0%) as Children’s, and under the “other” option 34 (10.4%) respondents listed facilities including LTACHs, specialty, and cardiology facilities (Appendix G). One hundred thirty-eight (42%) respondents described their hospital location as urban, 100 (30.6%) as suburban, and 88 (26.9%) as rural. The respondents’ mean hospital size was 337 beds (+/- 260) with a range of 16 to 1,300. The majority (84%) of respondents represented primarily centralized department structure.

Orientation programs

The descriptive results for the average timeframe of new employee orientations are displayed in Table 1. A t-test revealed no difference between the mean hours of orientation between academic/teaching and community hospitals (p = .113). There was a statistically significant difference noted between mean precepting hours for AS program graduates versus BS program graduates (p = .002), with AS program graduates spending slightly more time in orientation [mean 180.4 (195.2)] than BS graduates [mean 173.4 (193.5)]. Although Children’s hospitals reported a higher mean number of orientation hours, no comparisons were made due to the small number of Children’s hospitals
included in the sample (n = 13). Because the standard deviations for the means were very large, Table 1 also includes medians for each hospital type.

Two hundred twenty-six (n = 291, 77%) respondents indicated newly hired staff therapists receive individualized orientation programs based on their needs or passed experience. One hundred sixty-one respondents (n = 226, 71%) indicated orientation was individualized by work experience while only 24 (n = 226, 10.6%) respondents indicated they individualized the orientation based on the employee’s credentials (RRT, CRT). When a newly hired therapist had worked in the department as a student and subsequently accepted a full-time position post graduation, 87 (n = 222, 39.2%) respondents indicated they receive a different orientation than other new employees. However, it is important to note that many respondents commented they do not employ students in their departments.

Although centralized departments represented a large part of the respondents, 30 (9.2%) respondents described themselves as partially decentralized and 22 (6.7%) as decentralized. Of the decentralized and partially decentralized groups, 41 (83.7%) of these facilities reported they conduct departmental orientation for new RT clinical staff in their facility. The remainder of these respondents indicated that either the department that employed the therapist conducted the orientation, or a combination of both.

**Educational Resources**

Individuals responsible for conducting newly hired staff therapist orientation reported additional training they had received included: 77% on the job training, 55.9% attended hospital sponsored programs covering this topic, 44.9% earned an education
degree, 44.5% attended seminars for competency assurance methods, and 6% reported no additional training (respondents selected all responses that applied).

Respondents were provided with 37 topics from the AARC’s *2015 and Beyond* initiative and asked to choose with which method(s) they most frequently assessed each topic. Respondents were asked to indicate as many methods as applied. Methods included patient simulator, computer based clinical simulator, written test, oral test, observation of performing task (check-off), and topic not assessed. Results indicated that all but one topic was most frequently assessed with the check-off option. The one exception was assessing the new therapist’s ability to perform BLS, ACLS, PALS, and NRP as applicable to the job description, and was most frequently assessed using a written test (n = 230, 77.2%) followed by a check-off (n=228, 76.5%). This data is listed in Table 2.

For JC topics, respondents were provided with the following assessment method options: computer based education, handouts, traditional lecture, other not listed, and topic not covered. Responses were mixed with the most common methods used evenly distributed between computer based learning, lecture, and handouts. Refer to Table 3 for a summary of this data. Observed themes from the respondents’ comments regarding additional methods used during orientation programs included providing manuals to staff, topics were covered in general hospital orientation, information provided on the intranet, and discussions (Appendix G). All JC topics in the survey were covered by greater than 95% of respondents (including safety, unit and department policies, cultural sensitivity,
patient rights, how to contact a physician, and reporting sentinel events) except for early warning signs of a changing patient condition (12.7% indicated topic not assessed).

2015 and Beyond Goals

Comparisons were made among locations of hospitals (included rural, suburban, and urban) and whether or not selected 2015 and Beyond competencies were assessed during orientation program or not. Competencies were selected if >10% difference was noted between any of the 3 location categories. Refer to Table 4. Results indicated that significant differences exist between location of hospital and competency assurance assessed for eight out of the nine competencies identified except for interpreting hemodynamic monitoring data (p=.058). Comparisons were also made among types of hospitals (Academic/Teaching and Community hospitals) and 2015 and Beyond competencies using the same criteria. Refer to Table 5. Five out of the eight competencies identified as having greater than 10% difference between academic and community hospitals showed a significant difference after analysis using Chi-Square. These competencies included applying evidence based medicine to clinical practice (p=.116), interpreting lab results (p=.135), and interpreting hemodynamic monitoring data (p=.083).

Of the thirty-seven 2015 and Beyond competencies, only eight were not assessed by greater than 25% of respondents (see Table 2 & Table 6). The Therapeutics category included eight competencies, 7 of which were assessed during orientation programs by greater than 90% of respondents. Providing medical gas therapy, such as nitric oxide, was not assessed by 64 (21.4%) respondents. In the Evidence-Based Medicine & Respiratory
Protocols category, 249 (84.7%) respondents did not include critiquing published research in newly hired therapist orientation and, for Leadership, 209 (70.1%) did not include describing the healthcare and financial reimbursement systems and the need for reducing costs of delivering healthcare.

Remediation

Respondents were asked how they take action when a new staff member's performance does not meet competency expectations after the probationary period. From two hundred and eighty-one of respondents' who answered the question, 231 (82.2%) reported individuals who do not meet performance and competency expectations are paired with an experienced staff member for retraining and observation, 149 (53%) indicated individuals are terminated if they do not demonstrate competence after their probationary period ends, and 113 (40.2%) indicated individuals must repeat orientation and training then are subsequently retested. Comparisons of remediation methods by hospital location revealed that the only significant difference was retesting until the orientee receives a passing score was more frequently used by suburban and urban respondents that rural respondents (p = .014). Themes noted from respondents’ comments (Appendix G) included use of action plans and weekly reports on performance for newly hired staff therapists to monitor progress and to intervene early when competence is lacking. Several respondents also indicated they had not experienced competency issues that were unable to be corrected during orientation. Probationary periods of 60-90 days were frequently reported as a timeframe where new employees were expected to meet expectations and demonstrate competency prior to termination.
Discussion

The distribution of data includes all locations and types of hospitals, as well as all the AHA regions. Although Children’s hospitals only represented 4% of respondents, this is possibly a reflection of the population. The mean number of hours for newly hired staff therapist orientation programs had large variation in responses. However, the results indicated that there was no statistically significant difference between orientation hours for community and academic hospitals, and even though there was a statistically significant difference between precepting hours for AS and BS graduates, the 7 hours difference in the mean does not likely represent a practically important difference. Although RTs in academic/teaching hospitals may have a very different scope of services they provide when compared to community hospitals, this does not appear to affect the number of hours spent in orientation.

Those conducting the new employee orientation are primarily trained on the job; however, respondents also indicated that hospitals are providing programs that teach tools for assessing competency. Nearly half of the respondents also had obtained an education degree in order to better support their department’s orientation programs. The data demonstrates the competence, knowledge, and skills of these individuals to help join the initiative of 2015 & Beyond and incorporate additional advanced skills into their orientation for newly hired therapists. These orientation leaders have been equipped with continuing education and even additional degrees that have propelled the profession forward and can be translated to help benefit RT departments, staff, and patients by furthering staff skill sets.
In looking at the data received pertaining to the AARC’s 2015 & Beyond topics, the results reflected that RT departments are assessing competencies for almost all 37 topics surveyed. Only two of the selected thirty-seven competencies were not assessed by greater than 80% of the respondents. The eight topics out of the selected thirty-seven not assessed by greater than 25% of respondents included topics that are facility/area specific to which services are needed or offered [refer to Table 6]. These topics included describing the bronchoscopy procedure, relating sleep study results to disorders, performing basic spirometry, performing endotracheal intubations, interpreting hemodynamic monitoring data, critiquing published research, interpreting PFT results, and describing the healthcare and financial reimbursement system. These competencies are in alignment of specialized services that could be considered less often assessed due to the scope of services hospital departments offer based on their patient population.

Structure of departments and the division of services provided by ancillary professions and physicians have a large role in determining whether Respiratory Therapy departments would need to cover topics such as sleep study results, performing bronchoscopies, and performing basic spirometry for example. However, interpreting lab results is a general competency that respiratory therapists should be able to perform in all facilities in order to act as a member of the medical team and assessing the patient as a whole.

All of the respondents indicated a very thorough execution of assessing competency for the therapeutics category. Overall, however, RT departments showed area for improvement in orienting new staff in the importance of reading and critiquing
current published research as well as understanding the financial and reimbursement aspects of the healthcare system today. These topics stand out from the other thirty-five competencies because of the current climate that exists today in the healthcare industry. As the Baby Boomers age, attempts need to be made to improve quality while decreasing healthcare costs. Evidence based practice, according to the new healthcare legislation, will be reimbursed greater in the future. Therapists will be called upon to stay actively involved in research and the use of protocols will be relied on to guide respiratory care as technology and bedside roles expand. Respiratory Therapists will play an important role in reducing health care costs as part of the medical team. Nursing shortages have begun the shift of using other healthcare workers in a greater supportive role. RTs will need to assume new responsibilities of disease management. Competencies such as evidenced-based medicine, critiquing scientific research, developing protocols, and understanding financial reimbursement systems will be invaluable as these roles are developed.

Also notable from the data, there appears to be a lack of incorporating technology in the methods used to assess competency. Traditional methods such as check-offs and oral/written tests are overwhelmingly used most often. Managers in healthcare must able to adapt with the changing multigenerational workforce. With an increasing demand from the baby boomers, “expanding education pipelines for nursing and allied health professions” will be strained as well. The newer generation of healthcare workers work and learn differently than their predecessors and rely heavily on technology and self direction in the workplace. In this study, 30% of respondents indicated that they currently use patient simulation to assess competency for BLS, ACLS, PALS and/or
NRP, and 26% use patient simulation for endotracheal intubation. All other competencies are assessed using patient simulation by less than 12% of respondents. Departments should consider using patient simulators or computer based clinical simulators for more competencies including performing arterial punctures, completing a patient assessment through physical examination, and interpreting ventilator data, and expanding its use for performing BLS, ACLS, PALS, and/or NRP, and performing endotracheal intubation.

Simulations represent a growing trend in competency assessment methods and offer an opportunity to practice new skills when it would be otherwise problematic on live patients. Educational institutions and health care facilities are both turning to this method in order to help develop skills such as and reap the benefits that traditional methods fail to offer. Educational programs are observing critical thinking skills and multidisciplinary roles developing as a direct result of using simulations. Multidisciplinary sessions can include EMS, transport, RT, RN, and radiology and can involve a variation of clinical and physiological conditions. Another benefit that can be derived from simulations includes recording the process and a debriefing that follows. Debriefing can demonstrate to those involved how they did and how to correct errors without causing harm to real patients.

A study done by Walsh et al found that many managers and educators in respiratory therapy acknowledge the benefits of simulators but were neutral when asked if benefits outweighed the associated costs of such equipment. However, departmental budgets and initial start up costs for such equipment may restrict RT department’s ability
to do so. Though, collaboration with other departments such as nursing and taking an interdisciplinary team approach to learning and orientation may help impact patient care positively as well as reduce these costs. New methods may provide additional benefits such as information retention, teamwork skills, communication skills, and identifying system deficiencies.

For the topics required by the Joint Commission, RT departments that participated in this study showed overwhelmingly they are thoroughly assessing and conveying the JC standards for new employees. The only topic that showed room for improvement was early warning signs of a changing patient condition, which was still covered by 87% of the departments surveyed. All departments surveyed covered their own department policies and patient rights information. Additionally, even decentralized departments who conducted new employee orientations covered department policy topics. This demonstrates the thoroughness and adherence to JC standards by respondents. However, it is not clear whether respondents indicated that these topics were covered in the general hospital orientation versus their specific respiratory therapy department orientation. Due to the fact this was not clarified in the question, assumptions cannot be made that respiratory therapy orientations for new employees are entirely responsible for assessing these JC standards.

Additionally, the individualization component of newly hired staff therapist orientations in Respiratory Therapy departments is descriptive as to how orientation programs are structured. Respondents indicate that RT orientations are largely individualized on past experience rather than credentials or qualifications. Comments
from respondents indicated that therapists with experience tend to move through the orientation topics quicker and demonstrate their competency in a quicker timeframe. Nursing literature describes the orientation timeframe as “negotiable” based on the individual and experience. Nursing timeframes were reported as usually requiring 12 weeks orientation plus additional time for specialized areas such as pediatrics or cardiology.¹² When compared to average timeframes for orientation in Respiratory Therapy, Stoller et al¹³ described Cleveland Clinic’s orientation as a 3 week program. Data from our study described a 125.1 (SD 172.9) hour (about 3.1 weeks) program on average (with a large variation in responses). Comments (Appendix G) indicated that newly hired RTs with experience are usually provided an accelerated orientation program to verify competency, while less experienced new hires are provided a much more thorough orientation and not exposed to specialty areas as quickly (i.e Emergency department or NICU). Although nursing research reports a greater time spent in orientation than Respiratory Therapy research, both seem to have a flexible component which is adjusted based on experience and the area which the newly hired staff will be working.

Finally, all respondents indicated they have policies or methods for dealing with individuals who do not demonstrate competence as new employees. A common theme showed that all respondents had a method to address this issue. Respondents’ comments were useful in identifying that RT departments use action plans, weekly performance reviews, and probationary periods in order to monitor progress of new staff therapists (Appendix G). This shows that RT departments are monitoring their new employees
closely and understand the importance of assuring competency in the field of Respiratory Therapy.

Limitations

A non-response rate is not reported due to the population invited to take the survey may not support the acute care hospital inclusion criteria. There are a total of 5,795 registered hospitals with the American Hospital Association in the United States; however, the number of acute care hospitals in the United States is not reported. Therefore, an accurate non-response rate was unable to be calculated. The use of the list serves for the national Management and Education Section Memberships of the AARC resulted in emailing individuals that did not fit the desired population for the study including educators of RT programs and managers of home care companies. Furthermore, the number of actual employers of RTs in acute care hospitals in the United States is unknown, making an overall survey response rate of RT employers unknown.

The 2015 & Beyond list of 69 competencies was reduced to 37 competencies in order to control the size of the survey instrument and to include topics that would normally be found in an orientation program. These selected competencies could be readily assessed in an orientation for a new staff therapist in an acute hospital. Therefore, further research could be done using all 69 competencies.

A large amount of variation made it difficult to analyze the differences among type of hospital and number of hours required in orientations. For both academic/teaching as well as community hospitals, some respondents reported an average of zero hours spent in orientation prior to working independently. This question was not a required
field and could be skipped; however, respondents may have entered zero as an answer if they did not know an average number of hours spent in orientation. There is no way to confirm this data was accurate or entered for another reason. The data was reported in this study for the reader’s discretion. Further research should be done to more closely examine this subject. A more in depth look can also be used to describe the number of hours spent in orientation for new graduates versus experienced therapists.

Conclusions

Our research suggests RT departments are prepared to assess competency of their newly hired therapists using highly trained orientation leaders. These individuals should be able to help incorporate advanced level skills into their newly hired staff therapist orientation programs. Although research suggests more advanced methods of assessment offer important benefits, traditional methods such as check-offs and written/oral tests are most commonly used for competency assessment of topics during new employee orientation. Handouts, lectures, and computer based learning are commonly used for teaching JC standards. Newly hired therapist orientation experiences are primarily individualized based on work experience rather than credentials or prior employment as a student in the same organization. As for implications from this study that apply to educators in respiratory programs, the 2015 and Beyond competencies, especially those that represent advanced skills, should also be a focus for RT curriculums. The use of new methods of learning, such as simulators, would also benefit students in developing critical thinking skills, multidisciplinary teamwork skills, and practicing in a safe environment. RT educators and department managers must work together in order to evolve the
education and orientation processes to provide competent and advanced level respiratory therapists at the bedside.
References


Chapter 5: Summary & Conclusions

Our research suggests RT departments are prepared to assure competency of their newly hired therapists using highly trained orientation leaders. These individuals should be able to help incorporate advanced level skills into their newly hired staff therapist orientation programs. Although research suggests more advanced methods of assessment offer important benefits, traditional methods such as check-offs and written/oral tests are most commonly used for competency assessment of topics during new employee orientation. Handouts, lectures, and computer based learning are commonly used for teaching JC standards. Newly hired therapist orientation experiences are primarily individualized based on work experience rather than credentials or prior employment as a student in the same organization. As for implications from this study that apply to educators in respiratory programs, the 2015 and Beyond competencies, especially those that represent advanced skills, should also be a focus for RT curriculums. The use of new methods of learning, such as simulators, would also benefit students in developing critical thinking skills, multidisciplinary teamwork skills, and practicing in a safe environment. RT educators and department managers must work together in order to evolve the education
and orientation processes to provide competent and advanced level respiratory therapists at the bedside.
References


Appendix A: Survey Instrument
Respiratory Therapy Orientation Survey

The purposes of this study are:

1. To describe how respiratory therapy departments have structured their new clinical staff respiratory therapists orientation programs to verify competency.

2. To describe how these programs are designed to meet The Joint Commission standards.

* 1. Are you responsible for new employee orientation of respiratory therapy clinical staff in an acute care hospital?
   - Yes
   - No

* 1. In what region is your state located?
   - 1: CT, ME, VT, NH, MA, RI
   - 2: NJ, NY, PA
   - 3: DE, KY, MD, NC, VA, WV, District of Columbia
   - 4: AL, FL, GA, MS, SC, TN, Puerto Rico
   - 5: IL, MI, IN, WI, OH
   - 6: IA, KS, MN, MO, NE, ND, SD
   - 7: AR, LA, OK, TX
   - 8: AZ, CO, ID, MT, NM, UT, WY
   - 9: AK, CA, HI, NV, OR, WA

2. What type of hospital best describes yours?
   - Academic / teaching
   - Community
   - Children’s
   - Other (please specify):

   [Text box for other specification]
Respiratory Therapy Orientation Survey

3. What location best describes your hospital?
   - Suburban
   - Urban
   - Rural
   - Other (please specify)
   
4. How many licensed in-patient beds are in your hospital?

1. What training do you have to assess competency for new RT clinical staff? (may select more than one answer)
   - Attended seminars for competency assessment methods
   - On the job Training
   - Education degree
   - Topic covered in undergraduate RT curriculum
   - Hospital sponsored program
   - None
   - Other (please specify)
   
*1. How would you describe the structure of your department?
   - Centralized
   - Decentralized
   - Partially Decentralized

1. How many budgeted RT clinical staff full time equivalents (FTEs) are in your department?

2. What is the total number of respiratory therapists and respiratory technicians employed by your department?

3. How many of the respiratory therapists in your department have obtained the RRT credential?
Respiratory Therapy Orientation Survey

1. How many budgeted RT clinical staff full time equivalents (FTEs) work in your facility?

2. What is the total number of respiratory therapists and respiratory therapist technicians employed by your facility?

3. How many respiratory therapists working in your facility have obtained the RRT credential?

4. Who is responsible for conducting departmental orientation for new RT clinical staff in your facility?
   - The respiratory therapy department
   - The department in which the respiratory therapist or technician works
   - A combination of both departments
**Respiratory Therapy Orientation Survey**

1. How do you assess competence for new employees? (you may select more than one for each competency)

<table>
<thead>
<tr>
<th>Topic Not Assessed</th>
<th>Patient Simulator</th>
<th>Computer Based Clinical Simulator</th>
<th>Written Test</th>
<th>Oral Test</th>
<th>Observation of performing task (<em>check-off</em>)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate knowledge of basic critical care pharmacology</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Describe evaluation of therapy (i.e. adverse effects, effectiveness)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Provide Humidty Therapy (i.e. HMEs, heated humidifiers)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Provide medical gas therapy (i.e. nitric oxide, helium, devices)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Provide aerosol therapy (i.e. medication, bland)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Perform hyperinflation therapy (i.e. Incentive Spirometer, CPAP, IPPB)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Perform bronchial hygiene therapy (i.e. IPV, cough-assist, PD&amp;P)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Perform airway management (i.e. airway types, trach care, suctioning)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Provide mechanical ventilation (i.e. CPAP, BIPAP, Non-Invasive ventilation)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
**Respiratory Therapy Orientation Survey**

2. How do you assess competence for new employees? (you may select more than one for each competency)

<table>
<thead>
<tr>
<th>Topic Not Assessed</th>
<th>Patient Simulator</th>
<th>Computer Based Clinical Simulator</th>
<th>Written Test</th>
<th>Oral Test</th>
<th>Observation of performing task (&quot;check-off&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform spirometry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpret, apply PFT results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform arterial puncture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpret arterial blood gas results</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpret lab results (i.e. CBC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply protocols for treating ICU patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply protocols for treating non-critical patients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describe role of team functions &amp; collaborative decision making</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate effective written and verbal communication skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands role of team leader</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete patient assessment through chart review &amp; direct contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform thorough chest physical examination (i.e. breathing effort, breath sounds)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Respiratory Therapy Orientation Survey

**3. How do you assess competence for new employees? (you may select more than one for each competency)**

<table>
<thead>
<tr>
<th>Topic Not Assessed</th>
<th>Patient simulator</th>
<th>Computer Based Clinical Simulator</th>
<th>Written Test</th>
<th>Oral Test</th>
<th>Observation of performing task (“check-off”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform BLS, ACLS, PALS, NRP as required by position</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Perform endotracheal intubation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Perform as a member of a rapid response team</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Provide intra-hospital transport of critically ill patient</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Apply invasive mechanical ventilation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Apply noninvasive mechanical ventilation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Apply advanced ventilation modes (APRV, VCV, PAV, PRVC)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Interpret ventilator data</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Interpret hemodynamic monitoring data</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Please specify other methods utilized for competency assurance not listed

1. **What is the average number of hours that a new respiratory therapist spends in your department orientation, prior to being paired with a staff member with patient assignments?**

   

2. **What is the average number of hours that the new therapist is paired with staff for observation prior to providing patient care independently?**

   

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**Respiratory Therapy Orientation Survey**

1. With what method(s) are the following topics covered with newly hired clinical staff? (you may select more than one answer for each topic)

<table>
<thead>
<tr>
<th>Topic Not Covered</th>
<th>Computer-based education</th>
<th>Handouts</th>
<th>Traditional Lecture</th>
<th>Other not listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety elements for Patient care (i.e. Infection control/biohazard materials)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit Policies (i.e. ICU, ED, nursery)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Department Policies (i.e. Respiratory Therapy, Cardiopulmonary)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Sensitivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Rights Information (i.e. ethics, HIPAA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early warning signs of changing patient condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How to contact a physician</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reporting sentinel/adverse events</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Methods not listed (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. In what ways does the department take action when a new staff member’s performance does not meet competency expectations? (you may select more than one answer)

- Individual is retested until achieves a passing score
- Individual repeats orientation & training then retested
- Individual is paired with an experienced staff member for retraining and observation
- Other (please specify)

2. Do new employees receive an individualized orientation program based on their needs or past experience?

- **YES**
- **NO**
Respiratory Therapy Orientation Survey

* 1. Is there a different orientation for therapists credentialed with RRT versus CRT?
   - Yes
   - No
   If yes, briefly explain how they are different

* 2. Is there a different orientation for therapists who have work experience versus new graduates?
   - Yes
   - No
   If yes, briefly explain how they are different

3. Is there a different orientation for new employees who have worked in your department as a student and have accepted a full-time position post graduation?
   - Yes
   - No
   If yes, briefly explain how they are different

Thank you for your time. We appreciate your responses & hope to use this data to improve new employee orientations within the profession of Respiratory Therapy and provide managers information that can be used to benchmark themselves to their peers within the profession.

Thank you for taking the time to take this survey. We are targeting a specific group of respondents.

Please forward the email you received to the individual responsible for conducting new employee orientation programs for your department.

If you have any questions feel free to contact Kim Johnson (johnson.2918@osu.edu) or Sarah Varekojis (Sarah.Varekojis@osumc.edu).
Appendix B: Invitation Email
Subject: Structure and Implementation of Respiratory Therapy Orientation Programs

My name is Kim Johnson and I am a graduate student at The Ohio State University. I am currently completing a Master’s Thesis under the direction of Sarah Varekojis of the Respiratory Therapy Division at The Ohio State University. The purposes of this study are to describe how respiratory therapy department managers have structured their new employee orientations programs to verify competency and to describe how these programs are designed to meet published standards.

I greatly appreciate your cooperation and taking approximately 15-25 minutes of your time to complete the following survey. All the responses are confidential, and through your honest answers, this questionnaire will help benchmark current practices and provide insight that may allow further developments in the field of Respiratory Therapy. Please answer the questions to the best of your knowledge. If appropriate, please forward this email to whoever may best answer the questions or is responsible for conducting new employee orientations in your department (i.e. Education Lead Therapist, Assistant Director).

To access the online survey, please follow the link below, or copy and paste the web address in your web browser and follow the instructions.
http://www.surveymonkey.com/s/Y2BZSX5

If your facility's firewall prohibits transfer of data through this website, please complete the pdf version of the survey and e-mail or mail the survey to one of the contacts below.

Please complete the survey by July 8, 2011. Summary results of the study will be shared with the AARC management and education section list serves about 30 days following completion of the data collection period. Please feel free to contact Dr. Varekojis or myself at any time with questions or concerns.

Thank you for your time,

Kim Johnson, RRT          Sarah Varekojis, PhD, RRT
Johnson.2918@osu.edu       Sarah.Varekojis@osumc.edu

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Respiratory Therapy Division
The Ohio State University
431 Atwell Hall
453 W. 10th Ave.
Columbus, Ohio 43210
Office: 614-292-8445
Fax: 614-292-0210
Appendix C: Survey Reminder
Dear Participant,

Two weeks ago, I sent you an email invitation to participate in a study regarding the structure and implementation of Respiratory Therapy department orientation programs. THANK YOU to those of you that have completed the survey

If you have not yet had the chance to do so, I urge you to take time out of your busy schedule to complete the survey. It should take no longer than 15-25 minutes to complete the questionnaire.

To access the online survey, please follow the link below:

http://www.surveymonkey.com/s/Y2BZSX5

If your facility's firewall prohibits transfer of data through this website, please complete the attached pdf version of the survey and e-mail or mail the survey to one of the contacts below. Please feel free to contact either Sarah Varekojis or myself if any difficulties or questions arise.

Please complete the survey by July 14. Summary results of the study will be shared with the AARC management and education section list serves about 30 days following completion of the data collection period.

Thank you once again for your time,

Kim Johnson, RRT                  Sarah Varekojis, PhD, RRT
Kimberly.Johnson2@osumc.edu        Sarah.Varekojis@osumc.edu
440-339-0001

The Ohio State University
Office: 614-292-8445
Fax: 614-292-0210
Respiratory Therapy Division
The Ohio State University
431 Atwell Hall
453 W. 10th Ave.
Columbus, Ohio 43210
Appendix D: Tables
<table>
<thead>
<tr>
<th>Type of Hospital</th>
<th>Mean (SD)</th>
<th>Median</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>All (n=282)</td>
<td>125.1 (172.9)</td>
<td>75.0</td>
<td>0 - 2,088</td>
</tr>
<tr>
<td>Academic/Teaching (n=80)</td>
<td>148.5 (147.9)</td>
<td>90.0</td>
<td>0 - 865</td>
</tr>
<tr>
<td>Community (n=163)</td>
<td>110.6 (185.9)</td>
<td>72.0</td>
<td>0 - 2,088</td>
</tr>
<tr>
<td>Children’s (n=12)</td>
<td>185.3 (180.0)</td>
<td>66.0</td>
<td>36 – 480</td>
</tr>
<tr>
<td>Other (n = 26)</td>
<td>118.4 (154.3)</td>
<td>66.0</td>
<td>12 – 720</td>
</tr>
</tbody>
</table>

Table 1: Descriptive Statistics for New Employee Orientation Hours based on Hospital Type (1 non-response).
<table>
<thead>
<tr>
<th><strong>2015 and Beyond Competency</strong></th>
<th><strong>Topic Not Assessed [n (%)]</strong></th>
<th><strong>Assessment Using “Check off” [n (%)]</strong></th>
<th><em><em>Additional Methods for Assessment</em> [n (%)]</em>*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diagnostics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform Basic Spirometry (n=299)</td>
<td>89 (29.8%)</td>
<td>208 (69.6%)</td>
<td>35 (11.7%) Oral Test</td>
</tr>
<tr>
<td>Relate results of sleep studies to types of sleep disorders (n=291)</td>
<td>247 (84.9%)</td>
<td>36 (12.4%)</td>
<td>12 (4.1%) Oral Test</td>
</tr>
<tr>
<td>Describe the bronchoscopy procedure &amp; RT’s role (n=297)</td>
<td>128 (43.1%)</td>
<td>162 (54.5%)</td>
<td>34 (11.4%) Oral Test</td>
</tr>
<tr>
<td>Perform arterial puncture and Sampling (n=298)</td>
<td>16 (5.4%)</td>
<td>276 (92.6%)</td>
<td>58 (40.9%) Written Test</td>
</tr>
<tr>
<td><strong>Chronic &amp; Acute Disease Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explain pathophysiology, dx, tx of respiratory diseases (n=299)</td>
<td>72 (24.1%)</td>
<td>193 (64.5%)</td>
<td>83 (27.8%) Oral Test</td>
</tr>
<tr>
<td>Develop, administer &amp; reevaluate care plans (n=294)</td>
<td>54 (18.4%)</td>
<td>222 (75.5%)</td>
<td>73 (24.8%) Written Test</td>
</tr>
<tr>
<td><strong>Evidence-Based Medicine &amp; Respiratory Care Protocols</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply evidence-based Medicine to Clinical Practice (n=300)</td>
<td>74 (24.7%)</td>
<td>204 (68%)</td>
<td>61 (20.3%) Written Test 61 (20.3%) Oral Test</td>
</tr>
<tr>
<td>Apply protocols for ICU patients (n=297)</td>
<td>44 (14.8%)</td>
<td>238 (80.1%)</td>
<td>80 (26.9%) Written Test</td>
</tr>
<tr>
<td>Apply protocols for non-critical patient (n=297)</td>
<td>43 (14.5%)</td>
<td>240 (80.8%)</td>
<td>75 (25.3%) Written Test</td>
</tr>
<tr>
<td>Critique Published Research (n=294)</td>
<td>249 (84.7%)</td>
<td>36 (12.2%)</td>
<td>11 (3.7%) Oral Test</td>
</tr>
<tr>
<td><strong>Assessment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete a pt assessment through physical examination (n=298)</td>
<td>25 (8.4%)</td>
<td>268 (89.9%)</td>
<td>54 (18.1%) Oral Test</td>
</tr>
<tr>
<td>Interpret PFT results (n=293)</td>
<td>164 (56.0%)</td>
<td>105 (35.8%)</td>
<td>35 (11.9%) Written Test</td>
</tr>
<tr>
<td>Interpret ABG results (n=297)</td>
<td>28 (9.4%)</td>
<td>226 (76.1%)</td>
<td>122 (41.1%) Written Test</td>
</tr>
<tr>
<td>Interpret lab results (n=297)</td>
<td>117 (39.4%)</td>
<td>151 (50.8%)</td>
<td>51 (17.2%) Written Test</td>
</tr>
<tr>
<td>Measure vital signs (n=299)</td>
<td>36 (12.0%)</td>
<td>255 (85.3%)</td>
<td>55 (18.4%) Oral Test</td>
</tr>
<tr>
<td>Evaluate patient’s WOB (n=299)</td>
<td>26 (8.7%)</td>
<td>265 (88.6%)</td>
<td>61 (20.4%) Oral Test</td>
</tr>
</tbody>
</table>

Continued
Continued

<table>
<thead>
<tr>
<th>Leadership</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate effective written &amp; verbal communication skills (n=297)</td>
<td>67 (22.6%)</td>
<td>206 (69.4%)</td>
<td>56 (18.9%) Oral Test</td>
</tr>
<tr>
<td>Describe HC &amp; financial reimbursement systems and the need for reducing costs of delivering healthcare (n=298)</td>
<td>209 (70.1%)</td>
<td>62 (20.8%)</td>
<td>33 (11.1%) Oral Test</td>
</tr>
</tbody>
</table>

| Emergency & Critical Care                                                                 | | | |
| Perform BLS, ACLS, PALS, NRP as required by position (n=298) | 8 (2.7%) | 228 (76.5%) | 230 (77.2%) Written Test |
| Perform Endotracheal Intubation (n=297) | 145 (48.8%) | 136 (45.8%) | 79 (26.6%) Pt Simulator 73 (24.6%) Written Test |
| Perform as a member of Rapid Response Team (n=297) | 34 (11.4%) | 249 (83.8%) | 64 (21.5%) Oral Test |
| Provide intra-hospital transport of critically ill patients maintaining airway control (n=299) | 31 (10.4%) | 262 (87.6%) | 53 (17.7%) Oral Test |
| Describe basic critical care pharmacology (n=294) | 56 (19.0%) | 189 (64.3%) | 89 (30.3%) Written Test |
| Apply invasive mechanical ventilation (n=293) | 5 (1.7%) | 283 (96.6%) | 107 (36.5%) Written Test |
| Apply non-invasive mechanical ventilation (n=298) | 3 (1.0%) | 292 (98.0%) | 96 (32.2%) Written Test |
| Interpret ventilator data (n=297) | 17 (5.7%) | 257 (86.5%) | 82 (27.6%) Written Test 81 (27.3%) Oral Test |
| Interpret hemodynamic monitoring data (n=298) | 108 (36.2%) | 170 (57%) | 59 (19.8%) Oral Test |
| Use of therapeutic medical gases in treating critical patients (n=299) | 46 (15.4%) | 242 (80.9%) | 65 (21.7%) Written Test |

| Therapeutics & Applications                                                                 | | | |
| Evaluate various therapies (i.e. adverse effects, effectiveness) (n=299) | 8 (2.7%) | 274 (91.6%) | 71 (23.7%) Oral Test |
| Provide humidity therapy (i.e. HMEs, heated humidifiers) (n=298) | 9 (3.0%) | 282 (94.6%) | 64 (21.5%) Oral Test |
| Provide medical gas therapy (i.e. NO, He) (n=299) | 64 (21.4%) | 230 (76.9%) | 54 (18.1%) Oral Test |
| Provide aerosol therapy (i.e. medication, bland) (n=299) | 6 (2.0%) | 289 (96.7%) | 64 (21.4%) Oral Test |
| Perform hyperinflation therapy (i.e. incentive spirometer, CPAP, IPPB) (n=299) | 4 (1.3%) | 292 (97.7%) | 69 (23.1%) Oral Test |
| Perform bronchial hygiene therapy (i.e. IPV, cough-assist) (n=299) | 10 (3.3%) | 287 (96.0%) | 65 (21.7%) Oral Test |
Perform airway management (i.e. trach care, sxn) (n= 299)  
<table>
<thead>
<tr>
<th>Method</th>
<th>Count (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Test</td>
<td>4 (1.3%)</td>
</tr>
<tr>
<td>Written Test</td>
<td>288 (96.3%)</td>
</tr>
<tr>
<td></td>
<td>692 (3.1%)</td>
</tr>
</tbody>
</table>

Provide mechanical ventilation (i.e. CPAP, BIPAP) (n=296)  
<table>
<thead>
<tr>
<th>Method</th>
<th>Count (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Test</td>
<td>3 (1.0%)</td>
</tr>
<tr>
<td>Written Test</td>
<td>290 (98.0%)</td>
</tr>
<tr>
<td></td>
<td>78 (26.4%)</td>
</tr>
</tbody>
</table>

Table 2: 2015 and Beyond Competencies & Most Comment Methods for Assessment

*Respondents selected all methods that applied for competency assessment. N = 333.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Topic Not Covered [n (%)]</th>
<th>Assessment Method [n (%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Elements (i.e. infection control)</td>
<td>1 (0.3%)</td>
<td>217 (73.6%) Computer Based Ed 150 (50.8%) Traditional Lecture</td>
</tr>
<tr>
<td>Unit Policies</td>
<td>11 (3.8%)</td>
<td>160 (54.6%) Handouts     129 (44.0%) Traditional Lecture</td>
</tr>
<tr>
<td>Department Policies</td>
<td>0 (0.0%)</td>
<td>177 (60.0%) Handouts     127 (43.1%) Traditional Lecture 124 (42.0%) Computer Based Ed</td>
</tr>
<tr>
<td>Cultural Sensitivity</td>
<td>9 (3.1%)</td>
<td>209 (71.3%) Computer Based Ed 121 (41.3%) Traditional Lecture</td>
</tr>
<tr>
<td>Patient Rights Information</td>
<td>0 (0.0%)</td>
<td>219 (74.5%) Computer Based Ed 132 (44.9%) Traditional Lecture</td>
</tr>
<tr>
<td>Early warning signs of a changing pt condition</td>
<td>37 (12.7%)</td>
<td>145 (49.8%) Traditional Lecture 97 (33.3%) Computer Based Ed</td>
</tr>
<tr>
<td>How to contact a physician</td>
<td>13 (4.5%)</td>
<td>159 (54.5%) Traditional Lecture 82 (28.1%) Handouts 79 (27.1%) Other not listed</td>
</tr>
<tr>
<td>Reporting Sentinel/adverse events</td>
<td>2 (0.7%)</td>
<td>175 (60.1%) Computer Based Ed 163 (56.0%) Traditional Lecture</td>
</tr>
</tbody>
</table>

Table 3: Joint Commission Results for Competency Method Assessment
<table>
<thead>
<tr>
<th>2015 &amp; Beyond Competency (&gt; 10% difference noted)</th>
<th>Suburban [n (%)] competency assessed</th>
<th>Urban [n (%)] competency assessed</th>
<th>Rural [n (%)] competency assessed</th>
<th>Chi-Square p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe Bronchoscopy Procedure</td>
<td>67 (67.0%)</td>
<td>92 (66.7%)</td>
<td>40 (44.9%)</td>
<td>.002*</td>
</tr>
<tr>
<td>Interpret PFT results</td>
<td>46 (46.0%)</td>
<td>60 (43.5%)</td>
<td>57 (64.0%)</td>
<td>.007*</td>
</tr>
<tr>
<td>Relate Sleep studies results to sleep disorders</td>
<td>17 (17.0%)</td>
<td>31 (22.5%)</td>
<td>32 (36.0%)</td>
<td>.008*</td>
</tr>
<tr>
<td>Apply protocols for ICU patients</td>
<td>91 (91.0%)</td>
<td>124 (89.9%)</td>
<td>76.4% (68)</td>
<td>.004*</td>
</tr>
<tr>
<td>Describe role in Rapid Response Team</td>
<td>93 (93.0%)</td>
<td>127 (92.0%)</td>
<td>73 (82.0%)</td>
<td>.022*</td>
</tr>
<tr>
<td>Interpret hemodynamic monitoring data</td>
<td>68 (68.0%)</td>
<td>100 (72.5%)</td>
<td>51 (57.3%)</td>
<td>.058</td>
</tr>
<tr>
<td>Describe HC &amp; financial reimbursement systems and need for reducing costs of delivering healthcare</td>
<td>32 (32.0%)</td>
<td>42 (30.4%)</td>
<td>44 (49.4%)</td>
<td>.009*</td>
</tr>
<tr>
<td>Provide use of therapeutic medical gases in treating critical patients</td>
<td>89 (89.0%)</td>
<td>125 (90.6%)</td>
<td>67 (75.0%)</td>
<td>.003*</td>
</tr>
<tr>
<td>Provide medical gas therapy (i.e. INO, He, devices)</td>
<td>81 (81.0%)</td>
<td>125 (90.6%)</td>
<td>57 (64.0%)</td>
<td>.000*</td>
</tr>
</tbody>
</table>

Table 4: Differences Between 2015 and Beyond Competencies Assessed for Location of Hospital
* indicates statistically significant difference (p>.05)
<table>
<thead>
<tr>
<th>2015 &amp; Beyond Competency (&gt;10% difference noted)</th>
<th>Academic/Teaching [n (%)] competency assessed</th>
<th>Community [n (%)] Competency assessed</th>
<th>Chi-Square p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe bronchoscopy procedure</td>
<td>71 (71.0%)</td>
<td>108 (58.7%)</td>
<td>.025*</td>
</tr>
<tr>
<td>Apply evidence based medicine to clinical practice</td>
<td>84 (84.0%)</td>
<td>135 (73.4%)</td>
<td>.116</td>
</tr>
<tr>
<td>Apply protocols for ICU patients</td>
<td>95 (95.0%)</td>
<td>157 (85.3%)</td>
<td>.002*</td>
</tr>
<tr>
<td>Critique published research</td>
<td>32 (32.0%)</td>
<td>34 (18.5%)</td>
<td>.044*</td>
</tr>
<tr>
<td>Interpret lab results</td>
<td>72 (72%)</td>
<td>109 (59%)</td>
<td>.135</td>
</tr>
<tr>
<td>Interpret hemodynamic monitoring data</td>
<td>77 (77%)</td>
<td>115 (62.5%)</td>
<td>.083</td>
</tr>
<tr>
<td>Provide use of therapeutic medical gases in treating critical patients</td>
<td>93 (93.0%)</td>
<td>149 (81.0%)</td>
<td>.019*</td>
</tr>
<tr>
<td>Provide medical gas therapy (i.e. INO, He, devices)</td>
<td>95 (95.0%)</td>
<td>133 (72.3%)</td>
<td>.000*</td>
</tr>
</tbody>
</table>

Table 5: Differences between 2015 and Beyond Competencies Assessed for Type of Hospital
* indicates statistically significant difference (p>.05)
<table>
<thead>
<tr>
<th>Competency</th>
<th>Topic Not Assessed [n (%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relate results of sleep studies to types of sleep disorders (n=291)</td>
<td>247 (84.9%)</td>
</tr>
<tr>
<td>Critique Published Research (n=294)</td>
<td>249 (84.7%)</td>
</tr>
<tr>
<td>Describe HC &amp; financial reimbursement systems and the need for reducing costs of delivering healthcare (n=298)</td>
<td>209 (70.1%)</td>
</tr>
<tr>
<td>Interpret PFT results (n=293)</td>
<td>164 (56.0%)</td>
</tr>
<tr>
<td>Perform Endotracheal Intubation (n=297)</td>
<td>145 (48.8%)</td>
</tr>
<tr>
<td>Describe the bronchoscopy procedure &amp; RT’s role (n=297)</td>
<td>128 (43.1%)</td>
</tr>
<tr>
<td>Interpret lab results (n=297)</td>
<td>117 (39.4%)</td>
</tr>
<tr>
<td>Perform Basic Spirometry (n=299)</td>
<td>89 (29.8%)</td>
</tr>
</tbody>
</table>

Table 6: Eight out of the thirty-seven 2015 & Beyond competencies which represents those not assessed by at least 25% of respondents.
Appendix E: Chi-Square results for comparisons by Hospital Type
Describe bronchoscopy procedure and the RT's role in assisting the physician

What type of hospital best describes yours?

<table>
<thead>
<tr>
<th></th>
<th>Other</th>
<th>Academic/Teaching</th>
<th>Community</th>
<th>Children's</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>15</td>
<td>29</td>
<td>76</td>
<td>8</td>
<td>128</td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td>71</td>
<td>108</td>
<td>5</td>
<td>198</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>100</td>
<td>184</td>
<td>13</td>
<td>326</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>9.332a</td>
<td>3</td>
<td>.025</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>9.377</td>
<td>3</td>
<td>.025</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc</td>
<td>.894</td>
<td>1</td>
<td>.344</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>326</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.10.

Apply evidence-based medicine to clinical practice

What type of hospital best describes yours?

<table>
<thead>
<tr>
<th></th>
<th>Other</th>
<th>Academic/Teaching</th>
<th>Community</th>
<th>Children's</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>7</td>
<td>16</td>
<td>49</td>
<td>1</td>
<td>73</td>
</tr>
<tr>
<td>Yes</td>
<td>22</td>
<td>84</td>
<td>135</td>
<td>12</td>
<td>253</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>100</td>
<td>184</td>
<td>13</td>
<td>326</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.920a</td>
<td>3</td>
<td>.116</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>6.442</td>
<td>3</td>
<td>.092</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc</td>
<td>.420</td>
<td>1</td>
<td>.517</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>326</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What type of hospital best describes yours?</td>
<td>Other</td>
<td>Academic/Teaching</td>
<td>Community</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Critique published research</td>
<td>No</td>
<td>22</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>7</td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>100</td>
<td>184</td>
</tr>
</tbody>
</table>

### Chi-Square Tests

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>8.091&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>7.885</td>
<td>3</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.324</td>
<td>1</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>326</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> 1 cells (12.5%) have expected count less than 5. The minimum expected count is 3.11.

### Crosstab

<table>
<thead>
<tr>
<th>What type of hospital best describes yours?</th>
<th>Other</th>
<th>Academic/Teaching</th>
<th>Community</th>
<th>Children's</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpret lab results (i.e. CBC, electrolytes) - Topic Not Assessed</td>
<td>No</td>
<td>10</td>
<td>28</td>
<td>75</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>19</td>
<td>72</td>
<td>109</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>100</td>
<td>184</td>
<td>13</td>
<td>326</td>
</tr>
</tbody>
</table>

### Chi-Square Tests

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>5.563&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.681</td>
<td>3</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.150</td>
<td>1</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>326</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.63.
### Crosstab

<table>
<thead>
<tr>
<th>What type of hospital best describes yours?</th>
<th>Other</th>
<th>Academic/ Teaching</th>
<th>Community</th>
<th>Children's</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>hemodynamic monitoring</td>
<td></td>
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### Chi-Square Tests

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a. 1 cells (12.5%) have expected count less than 5. The minimum expected count is 4.31.

### Crosstab

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### Chi-Square Tests

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**Chi-Square Tests**

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- 1 cells (12.5%) have expected count less than 5. The minimum expected count is 2.55.

### Protocols for ICU patients

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<td></td>
<td></td>
<td>326</td>
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<td>27</td>
<td>3</td>
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<td>95</td>
<td>157</td>
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**Chi-Square Tests**

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- 2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.75.
Appendix F: Chi-Square results for comparisons by location
## Crosstab

Describe bronchoscopy procedure and the RT’s role in assisting the physician

<table>
<thead>
<tr>
<th>Location</th>
<th>Suburb</th>
<th>Urban</th>
<th>Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>33</td>
<td>46</td>
<td>49</td>
<td>128</td>
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<tr>
<td>Yes</td>
<td>67</td>
<td>92</td>
<td>40</td>
<td>199</td>
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<td>138</td>
<td>89</td>
<td>327</td>
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<tr>
<td>Pearson Chi-Square</td>
<td>13.000&lt;sup&gt;a&lt;/sup&gt;</td>
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<sup>a</sup> 0 cells (.0%) have expected count less than 5. The minimum expected count is 34.84.

## Crosstab

Count

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### Crosstab

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<td>60</td>
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### Chi-Square Tests

<table>
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\(a\). 0 cells (.0%) have expected count less than 5. The minimum expected count is 44.36.

### Crosstab

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### Chi-Square Tests

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\(a\). 0 cells (.0%) have expected count less than 5. The minimum expected count is 21.77.
### Crosstab

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### Chi-Square Tests

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* 0 cells (.0%) have expected count less than 5. The minimum expected count is 32.12.

### Crosstab

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### Chi-Square Tests

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### Hemodynamic Monitoring

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**Chi-Square Tests**

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*a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 29.39.*

### Use of Therapeutic Medical Gases

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**Chi-Square Tests**

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*a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 12.52.*
## Crosstab

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### Chi-Square Tests

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<td>.005</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>327</td>
<td></td>
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</table>

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a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 17.42.
Appendix G: Raw Data Comments
Type of Hospital “Other”
all of the above
LTACH
LTAC
LTAC
Academic and Children's
LTACH
Teaching Adults and Children's
speciality surgery center
LTACH
Specialty
ltach
Cardiology Center
CAH
Critical Access
Regional Medical Center
all of the above
Critical Access
LTAC
Government IHS
native american acute care and clinic
level II trauma center
tertiary
tertiary
VA Medical Center...Federal Government
Tertiary Care Hospital
LTACH - Academic / teaching
DME
LTACH
Tertiary care community hospital

What training do you have to assess competency for new RT clinical staff? “Other”
Direct observation
Work with masters degree nurse educator.
NBRC credentials
I am a member of the Hospital Education Committee. We set guidelines for departments
to follow during competency evaluation time.
Computer Based Learning Modules
enrolled in Training and Development Degree program
skills & competency yearly training
literature reviews, textbook information
specific equipment competencies, certified programs, clinical education
AARC competency manual, BS Degree in Cardiopulmonary
We have set up our own orientation program since the RT's I hire only work with neonates
competency check-offs yearly
Nursing Consult/Mosby's
Four-week new employee orientation competency check-offs and exams.
textbooks/lan manuals
Observation and proctor New staff
assessed during their probation period (90 days)
9 weeks of clinical orientation
AARC
Standing Education Committee member to evaluate ongoing
department has a manager of education with a masters degree in education
Enrolled in Training and Development Degree program
Skills & Competency yearly training

2015 & Beyond Competencies: Please specify any methods not listed that are used by your department:
We have a yearly skills day to recheck staff
Health Stream online computer courses with tests and mandatory competency skills days
We engage all our new employees in discussions of problem based learning scenarios for each therapy we provide. Discussions are used for many topics
Journal Club
VDR
Ventilator workshops
repeat demonstration
Teach back of asthma education
monthly simp-man emergency airway scenarios
classroom setting
Review of Procedures and protocols
Computer based modules with test
QA actual pt charts for each specific employee
set up skill labs to reinforce procedure
Instead of true patient simulator, we do work with equipment and scenarios with data input and troubleshooting methods.
outside lectures for CEUs
Classes, modules (paper), return demo
not oral testing but verbalizing and discussing
direct observation of employee performing procedure
Vendor "class" on infant ventilation
completion of specific competencies
"Lab day" to review/test vents/bipaps, etc. and blood gas lab responsibilities
Verbal Discussion
In-services by Vendor educators.
equipment competency days for new employees
Verbal explanations from new staff -explaining critical thinking process are part of the
orientation process. Our staff goes through a surgical rotation for intubation and LMA
insertion also. ABG and A-line draws are observed x5 sticks/draws each prior to being
able to do on own.

JC Standards: Other Methods not listed (please specify):
Manual
Direct observation
Direction by manager for sentinel events
Hospital-wide orientation
hospital orientation
Disuessed on orientation
ON-line systems (iLearn, policy manager)
New employee orientation covers all topics
Annual Mandatory Educational Fair
department meetings, at shift change face to face, rounding on the floors, policy copies,
email
Intranet holds alot of information so it is introduced during orientaiton
Hospital Orientation, Department Orientation
policy and procedure manuals
written test, annual hospital inservice
DVDS AND VIDEOS
Dpt Policy and Procedures and signing statement
staff mettings
Communication book and/or computerized files
review cards to contact MD's
Hands on / Observation
one on one mentoring with supervisor
required review of manuals
policies
done in general hospital orientations
department meetings, bi-monthly newsletter, one-on one education
inservices complete with return demos, videos
Most of this is covered in hospital general orientation as well
reading policy manual
Dept. orientation is one-on-one with Director; skills labs with equipment and procedures
used for pathways, changing patient condition and how to contact physicians
open house forums, discussion
lecture/Discussion
State ethics class required for license
Trivia Games, Team Meetings, Drills
One on one conversation with staff member with access to references.
One on one discussion with preceptor
oral review
New employee orientation for all hospital employees
Reading P/P Manuals
information in a 1:1 setting and demonstrate
Location of Hospital and department policy and procedure manuals and how to access online. Hospital orientation.
addressed by individual preceptors
Orienter explaining
Verbally explained and documented by checkoff
Discussion
hospital orientation

In what ways does the department take action when a new staff member's performance does not meet competency expectations after probationary period?: “Other”
If the new hire needs more time, they continue orientation with an experienced staff member. If the new hire does not demonstrate competence after further training from the staff member and the educators, then they can be terminated.
To my knowledge we have not had an employee not meet basic competence at our hospital after remediation efforts
They are retested again and if they don't pass on the 2nd attempt, they are reprimanded and are required to attend mandatory education on the competency in which they did not pass.
In orientation, we use daily and weekly feedback sheets to be used by the new employee and preceptor.
after the above, then terminated if still not meeting expectations
associte placed on a formal performance deficient notice with plan and time limited 60-90 days
we monitor the orientaion and extend and customize, if the doesn't work we terminate.
We have terminate unless we believe the employee is salvageable in which case we will extend probation for no more than 30 days and attempt remediation.
IF not competent after the initial 3 mos, additional 3 mos added
A written Action Plan is developed.
Have not happened
The acuity of lack of performance determines between retraining or termination
Probation extended with action plan to address specific deficiencies
Direct feedback to identify source of problem and need for additional support or information
if fails ICU orientation removed from ICU and works divisions only
probation is extended an additional 3 month followed by termination is not meeting expectations
usually given a mentor to aide in training.
extend probationary periods
depends on where the employee is week, possible termination
depends on level of competence and communication skills
Coaching and additional handons education throughout probationary period if expectations are not being met
Employee is counseled on areas to work on and then retested
The first 2 indicated are completed and if not satisfactory then 3rd option
Depends on circumstances- if minor issues, retrained- if major issues and just will not cut it- termination
person remains in orientation til meet requirements. After 90 days if do not meet expectations are terminated or repeat orientation based on fit.
disciplinary process is initiated
retrained on area of need, retested
If after re-training, team member is terminated. We have had several not make it through our orientation.
No employee is release untill all competency have been met.
Action plan with re-education then re-testing one time, then possibly termination if test is failed.
New grad rt's are given extended orientation of 288 hrs.
Dependant upon severity - 2 weeks to retry - or termination
We adjust during the orientation period but we don't wait until the probationary period is over to terminate employment.
A plan is developed with clear expectations and a time frame.
continual assessment during probationary time
We try to nip problems in the bud and combine feedback from the preceptors and Managers and
give it to the individual early on with hopes they can correct the behavior.
Most often it is not a problem as we just lengthen orientation in the areas the problems are occuring...and only once did we let a person go.
Performance improvement plan with time limits with team Coordinator or tenured staff
Again this depends on the individual, but all have been used.
The new employee will have a meeting with the management team. The expectations of the job will be addressed again and new goals will be set to achieve a positive outcome.
A meeting will be held again in a couple of weeks to see the progress and revisit to discuss if the new goals were achieved.
teaching plan designed specifically for individual..."what do we need to do to help you?
What are your obstacles?..."

Is there a different orientation for therapists credentialed with RRT versus CRT? If yes briefly explain.
CRT are limited in competencies they achieve
not based on credential but demonstrated knowledge & ability
CRT not allowed in ICUs...general care and transitional care only
CRT's do not perform critical care, therefore the RRT has more orientation than 80 hrs. We only hire RRT or they must get it within 6 months. We only hire RRT's But we don't hire CRTs. CRT gets less ICU, MRT etc No we only hire RRT's CRT are not oriented to critical care areas This facility is small, both credentials are treated equally depending on experience. N/A as we do not hire CRT N/A We no longer hire CRT's, the last one hired was in 2007. CRTs are not hired RRTs are eligible for lead and charge roles so their scope is expanded CRT are not permitted to perform all that RRT is we do not hire CRT's RRT goes through ER and ICU/CCU training. CRT does not until pass RRT. would be based on their experience RRT is trained to work in ICU and assist with bronchoscopy We require RRT within 1st 12 months. I do not hire non RRT We only hire RRT we do not hire CRT we oly hire RRTs RRTs are provided additionally training to higher risk procedures. We base orientation on therapists skills After self evaluation orientation is customized based on results and observation All staff are expected to complete RRT within 1 year so all are oriented the same orientation is individualized to the person regardless of credential Individual based with up to 10 weeks for CRT. RT's are oriented to charge tech duties after 1 year. ICU coverage more often, intubation rotation. Don't hire CRT's Orientation time is totally based on the needs of the new orientee whether CRT, RRT, bachelor or associate degree We only CRT with the expectation they pass the RRT within 6 months not unless they come with a lot of experience. They are orienting to our facility and processes...not to how to provide therapies. No critical care for CRT Typically only hire registered therapists RRTs function as shift leaders so there is more emphasis on accountability/productivity RRTs move beyond general care.

Is there a different orientation for therapists who have work experience versus new graduates? If yes briefly explain.
Complete a "needs" assessment & orientation is tailored to the orientatees needs therapists w/ experience who demonstrate competence move much quicker through orientation
additional hours for adult critical care orientation varies -- up to 360 hours additional orientation
We will accelerate the orientation on a case by case basis.
New graduate may spend more time with a preceptor
Usually shorter. Individualized to employee
They typically do not need as much orientation, unless the new graduates performed clinical rotations at our facility.
New graduates need more time in orientation
I do not have the resources to hire and train new graduates correctly.
New grads take longer, more time spent w/preceptor on all aspects of care
New grads are given opportunity to gain experience in a mentored environment experienced RTs may not need full 324 hours if they demo excellent technique and understanding
increased observation, demonstration, and return demonstration hours in orientation
Slightly shorter orientation and if they have an ABG certificate less witnessed abgs needed to demonstrait competency
The new graduate would have more time and it is assess if more time is needed at end of ori.
Depending on experience, we allow for up to 2 weeks extension in orientation for those individuals, whether new graduates or experienced, who we feel, or they feel, need further review.
More intense focus in areas that are new to the new graduate such as equipment.
RT's with work experience orientation period 4-6wks and new grads 6-8 wks
New graduates have a longer orientation period with a mentor versus a "seasoned therapist".
adjustments made after needs assessment completed
new grad will get longer orientation
Time frame may be shorter with more experienced therapists, but program same all go though the same basic oriaiention and we excellerate or extend to meet the education needs of the therapist
don't get many with pediatric experience
Depends upon their experience - if skills demonstrate high level of experience with certain modalities such as ventilator management, then they may train with an experienced therapist regarding hospital specific protocols, practices, etc. less time than a new graduate.
Reassessment of knowledge and skills
longer duration of orientation for new grads
Students would be allowed more time.
Number of hours in orientation
N/A We don't hire new grads, we're too small and don't have enough volume to give an appropriate orientation.
Min 4 years experience required
Experienced RT's may receive streamlined orientation based on their skills and experience
Experienced is shorter, same rotations but not as long in each rotation
New graduates spend 72-108 hours more to ensure understanding of procedures and patient care
new grads are not exposed to the ICU, ED and NICU as quickly as experienced
Longer time is spent with the new graduate
Spend more time with new grad, teach them how to communicate with staff and patients
They receive fewer hours of orientation with a staff member.
New graduates are mentored for longer period of time.
But we are more patient with new grads and their orientation can be extended if needed
treat all the same
Based on experience and exposure, orientation is modified to their needs.
amount of information given
Experienced therapists can perform most basic tasks so you can fast track their orientation
Experienced therapists take less time
New grad do not orient to critical care initially and spend longer time with preceptor
usually takes another 72 hours or more in orientation
Less time is spent orienting on equipment the employee is comfortable operating and on procedures they are comfortable performing. They must still demonstrate competency however.
Longer orientation period
Earlier utilization with a patient for experienced. Same basic week with a supervisor to start off.
Accelerated orientation
Therapists remain in orientation until they are comfortable to work on own
can be released from orientation sooner dependant on skills
we review in more detailed expected behaviors, assessment skills, policies. More observation is made on preceptors portion of new hire.
In certain areas, experienced therapist's orientation is streamlined. Nonetheless, other areas are not as streamlined for experienced therapists.
Time paired with another RT may be reduced if the new hire meets orientation goals early
usually longer time in orientation to more experience.
Competency evaluation is self paced; experienced individuals tend to finish faster.
more detailed
the time is cut in half for an experienced graduate depending on the area that they have experience
Less time paired with an experienced therapist.
they are on the day shift and paired with another therapist for longer periods of time.
new graduates are oriented to ICU and vents after 6-months on the job
Will focus more on basic therapy, then move towards critical care vs. orient to hospital as a whole.
If the experienced shows competency quicker, they are placed on the floors quicker. much more indepth orientation for a new graduate
New grad gets more proctoring with another staff member
DEPENDS ON THE INDIVIDUALS EXPERIENCE
The therapists with experience can be moved quicker through the process orientation may be 2 weeks instead of 3.
cpncentate moe on EMR, written test out on ICU sooner
We vary the number of orientation days based on need after the initial 2 weeks. Usually require less time
10 straight weeks verses 21 weeks with breaks to work in areas between for the grads. those who have work experience may only need 2 weeks in each unit, whereas new grads may take longer
Again you can reference experience. If they have only the hospital work experience from clinicals, you need to assess more carefully all aspects of their care. Basically more observation/supervision until comfortable with their skill level. If you have an experienced employee and you observe appropriate assessment and treatment delivery skills, you only need to review the nuances of your polices.
less hours needed typically does not require the full 6-8 weeks like a new grad
More in depth on principles I only hire RRT with at least a year of acute care experience
Orientation is modified to fit persons past experiences. more time is devoted to new grads to achieve comfort level longer non patient care period prior to observation time.
new graduates may require a greater amount of time but the orientation tasks are the same they are paired of with staff earlier as with new grad are with supervisor longer program is tailored to meet individual needs in all cases, regardless of credential or education Amount of time with a preceptor longer precepting period for new grads
we fast-forward to proficiency check-offs after preliminary review work complete the length may be adjusted depending on how quickly competency is demonstrated
More involved and longer time for new grads new grads are given more orientation time.
The amount of time needed if experienced with the ventilators we use. This also depends on the years of experience and what type of experience at previous employer.
New graduates are typically in orientation for approximately 480 hours.
a new grad will be shown how to perform tasks, an experienced worker will be asked to demonstrate tasks
We focus on areas that need more education
experienced therapists spend less time going over equipment they have used
New grad orientation is longer
New grads have longer orientation period averaging 4-6 weeks
Just longer time period and more time taking loads with "resource" double checking them
If able to show competency, orientation is accelerated
Higher expectations, faster pace.
New graduates are given a greater amount of time with a preceptor
Based on the history and experience of the therapist, we might orient the person directly to an ICU.
experienced RT's normally work thru the process at a quicker pace
experienced RTs complete orientation usually much faster.
experienced RTs receive abridged training for critical care. New grads receive 12 hour critical care program
seldom hire new grad unless completed clinical rotation at facility, pace is slower at first.
More comprehensive
HIT THE TARGET CONCERNS
orientation is individualized to the person based on initial assessment of knowledge, skills & experience
Usually need less preceptor shifts if have experience
Individualized based, depending if a graduate from local program, previous work experience, etc.
More time is spent on basics, especially documentation and assessments skill for new grads.
shorter time for experienced
More time is taken with a perceptor with new grads, experienced therapist get checkoffs done and learn charting usually quicker than a new grad
less time is spent paired with an experienced RT.
New grads have more preceptor time
Some segments may be shortened IF the employee is demonstrating advanced competence.
An experience therapist may not require close observation of a preceptor for as long a period as a new graduate.
typically the new graduate orientation is longer
But previous work experience usually translates to shorter orientation time needed
Depends on if they have pediatric experience or have worked at one of our other system affiliates
Do not receive as much explanation of procedures. We explain how our institution differs and RT performs competencies
More time is spent with a new therapist than on that has had experience.
longer for new grads
You have to teach the new grad significantly more than the old hand.
less time spent in areas of most experience before checkoff
Self assessment determines orientation needs.
Usually shorter for experienced therapists, rarely hire new grads
shortened - less lecture training on equipment and procedures if competency assessment is met with verbal evaluation
Based on experience
Orientation time is based upon self assessment tools and demonstrated performance
May be quicker
Areas of emphasis are tailored to the individual
orientation moves at the staff members need.

Is there a different orientation for new employees who have worked in your department
as a student and have accepted a fulltime position post graduation? If yes briefly explain.
spend more time with orientee introducing staff & doing walkabouts to all the different
areas with an employee that is new to the medical center
therapists who have worked in the department or did an internship would move quicker
b/c they already have some of their competencies
Orientation may be a bit quicker if already famialar with facility and general policies
May spend less time in orientation if they were a "Fast tracker" as a student
They typically will only need critical care orientation.
I do not have students at my facility.
Although thay may transition quicker.
Based on their employment, will have them shadow experienced therapist in CCU
Nursery ER
Our student employees are restricted on the duties they can perform even though they
are directly supervised by a licensed therapist. They are required to do 6 weeks
minimum on floor care before eligible to work in an ICU. Plus the student must be 6
months prior to graduating before eligible to work in an ICU. So, a student's orientation
can be divided into sections depending on time frame and graduation date. Once they
graduate, their orientation is much shorter because they have already completed a large
portion of the orientation requirements.
General orientation has been completed so the focus is on departmental orientation.
The orientation is the same but started earlier so post graduation their is more focus in
ICU and ER.
These students have a higher competency rating than someone who is new to the
organization. These employees have already demonstrated many of the competencies
needed to perform as a functional part of the team.
Out externs have general competencies.
shortens time needed to orient to our equipment and some procedures
many things already checked off as a student.
All orientees progress based on performance and demonstrated skill; students tend to
progress faster, if they were good students
adjustments made after needs assessment completed.
time frame may be shorter, but program same
This is usually excellerated because a portion of their general care orientation was
completed during their student orientation.
Modified for floors only.
The areas that they have been orientated on and demonstrated appropriate knowledge and skill may be assigned less orientation time than someone that has never entered the hospital. Part of the orientation to facility is abbreviated because they are already aware. If we had students who had worked with us, I'm sure the orientation would be slightly shorter.

No need to cover geography, basic policies, etc. No students at this time only slightly as most of the basics are covered for students focus is mainly on procedures, policies and any questions not covered in clinical days completed here on site. They receive fewer hours of orientation with staff. Orientation time may be decreased by a couple of days depending on the person.

Students are always with their clinical instructor.

No/a we do not employ students. May be able to fast track certain steps of orientation.

Less time is spent orienting on equipment the employee is comfortable operating and on procedures they are comfortable performing. They must still demonstrate competency however.

Orientation would be centered only on additional duties and assignments.

Non applicable-don't hire students while in school or post graduation until experienced somewhere else. They already know many of the processes and policy so we do not have to spend as much time with this section of orientation. Student therapist/Graduate therapist whom have performed clinicals at our facility have began to learn our processes. Thus, they are better able to pick-up different processes performed within our department/facility.

Streamlined. They are fully oriented to the divisions by the time they graduate then a full ICU orientation is granted. Less time paired with an experienced therapist.

Will most likely move orientation rapidly towards critical care. A returning student would be familiar with our practices.

Depends on the individual and what we have been able to expose them to.

They can be checked off on floor care after a week instead of the usual time. Employee will just be oriented to procedures not already done during first student orientation.

Already have EMR skills, know protocols in ICU, where various depart. are, etc. Same as above - number of orientation days based on need. As far as paperwork is concerned, no, but they should know how to document and deliver treatments based on our policy already thus shortening some time.

One week less in orientation due to previously mandated orientation is already completed. Some parts they are already oriented to having worked as students.
We are no longer able to hire students of the college program. All of our employees come post-graduation.
N/A
shorter time period as they are usually familiar with protocols at hospital already
Again...only one comprehensive orientation program, but is refined based on need.
Amount of time with a preceptor
They have a slightly shorter orientation period
if they are still working on general floors-no, to go into different areas post graduation-yes
Not so much EMR training for the student
N/A - we do not hire students.
We know what skill level a previous student has
Some basic parts of orientation are covered while they are in rotation
student RT's only work acute care areas, no ICU
Shorter review of department policy, work flow, etc.
Higher expectations, faster pace.
NA- must have a license to work in department
Note- students may only work as equipment techs
Much less time needed in orientation
Generally need less time.
Not really, but they do have more comfort with where things are and who is who which helps.
Competencies completed as a student do not have to be repeated.
less preceptor time and less general orientation to facility
They have already been exposed to department and hospital policy and protocols. Their orientation time needed is minimal
Student can't work in peds but we do have pediatric interns who hire on with experience;
first 2-3 weeks are the same, then they usually progress more quickly as far as workload continue with what they need, already familiar with hospital procedures
na - we don't have students
Eliminates some of the IT, geographic layout, etc
They will know the layout and hospital policies.
less time spent in areas of most experience before checkoff
less time spent on hospital tour, online processes for safety reporting, education, charting, etc.
They are already familiar with the policies and procedures
We begin student with very basic things (i.e. equipment cleaning and set ups and stocking areas). As they are acquiring skills in school we are checking them off with a preceptor and slowly incorporating their learned skills into the work load. By the time they graduate, they are usually taking close to a full load in the general care or CF areas.