

Onboarding Experienced Non-Oncology Nurses to Address Staffing Shortages





Development of a transitional oncology training program

In Brief

Over the past few decades, the demand for oncology services has skyrocketed in the United States,¹ propelled by a steady stream of advances in diagnosis, treatments, and survival from cancer.² Unfortunately, the pipeline of oncology nurses nationally has not kept pace with demand³⁻⁸ and continues to be a major issue.⁹ This is particularly true in specialized areas of cancer care, such as blood and marrow transplantation (BMT) and precision medicine (Phase I-III clinical trials), which require considerable experience, knowledge, and skill. In 2017 nursing leaders at Miami Cancer Institute, a comprehensive community cancer center located in Miami, Fla., found themselves facing this exact dilemma. Building off their experience designing programs in the inpatient setting, these nurse leaders developed a 12-week Transitional Oncology Nursing Academy designed for experienced, non-oncology nurses to orient and receive the oncology-specific knowledge, skills, and mentoring needed to transition successfully into the ambulatory oncology setting. In 2020, Miami Cancer Institute won an Association of Community Cancer Centers (ACCC) Innovator Award for this program, which has a 97 percent graduation and retention rate and has supplied 13 percent of the nursing workforce of the cancer program. Below, the authors present data from the first two years of the program, along with the program's history, structure, metrics, and initial outcomes, as well as helpful hints and lessons learned for cancer programs looking to implement a similar program.

Miami Cancer Institute, a 405,000-square-foot comprehensive and academic community cancer center, opened its doors in January 2017, offering a wide range of specialty services, including blood and marrow transplantation (BMT), proton therapy, a robust research program with precision medicine that includes Phase I-III clinical trials, and a Patient Cancer Support Department. In the years leading up to Miami Cancer Institute's opening, one of the many important challenges we had to contend with was the national shortage of nurses, with recent data suggesting that South Florida has actually been one of the regions hardest hit by the national nursing shortage.¹⁰ As leaders well versed in oncology, we were highly attuned to the possibility that we might not be able to hire enough nurses with the high-level knowledge and skills needed to work in oncological specialties. We also knew

that to meet our mission to deliver "the most innovative, evidence-based care" anywhere, we needed to ensure that the nurses we hired were prepared to care for our patient population.^{11,12} Finding nurses with the blend of skills, experiences, knowledge, and certifications needed to care for our patients would pose a big challenge.

Nursing shortages in any clinical specialty can influence job satisfaction, job stress, burnout, and the quality of patient care.¹³⁻¹⁵ We knew that, in most cases, even Bachelor's prepared nurses receive minimal education in specialty areas such as oncology and the operating room during their programs.² While helping to develop the next generation of oncology nurses is an important focus for Miami Cancer Institute, we recognize that experienced nurses represent an opportunity to build a strong base of nurses from those we have locally.²

Making the business case to senior leadership that our sustainable nurse training and onboarding program would supplement outside recruitment, eliminate agency costs, and attract experienced nurses to outpatient oncology made approval of the Transitional Oncology Nurse Academy a "no brainer."

Origin Story

The idea for a Transitional Oncology Nurse Academy originated from two executive RN administrators: Michele Ryder, MSN, MSHSA, RN, CENP, Miami Cancer Institute's vice president, chief operating officer, and chief nursing officer; and Marguerite Rowell, MSN, MBA, MSM/HM, ONC, SCRNP, assistant vice president of nursing. Our collective years of experience working as leaders in the inpatient setting at hospitals, such as Baptist Hospital of Miami, and creating training programs for specialties, such as orthopedics and neuroscience, made developing a transitional nursing program in oncology a natural fit. Over the years, we have learned that preparing nurses to work in subspecialties often requires additional education, training, and resources. By developing academies for the various oncology specialties, nurses are provided the resources needed to competently work in high-stress, highly specialized clinical areas and feel confident providing safe, quality patient care.

Building Support for the Initiative

One of the first steps we took to develop the Transitional Oncology Nurse Academy was to obtain buy-in from our chief executive officer (CEO) and chief medical officer (CMO). For any institution, nurse staffing is a complex process that requires careful solutions hardwired into an organization and flexible enough to evolve over time. We knew that program development would require ongoing financial commitment to be successful, along with strong support from executive leadership who recognized the benefits this type of program could bring to the organization overall. Making the business case to senior leadership that our sustainable nurse training and onboarding program would supplement outside recruitment, eliminate agency costs, and attract experienced nurses to outpatient oncology made approval of the Transitional Oncology Nurse Academy a "no brainer."

Understanding Current Opportunities

Before we started formally designing the Transitional Oncology Nurse Academy, our team evaluated the current education and training available to oncology nurses in our healthcare system

and developed a gap analysis. A gap analysis is critical before designing any program to ensure you do not spend time recreating processes and resources that already exist, and you can focus your energy adding training where it is needed most. Our gap analysis showed that our health system's onboarding process for new nurses was structured and well organized; however, an opportunity existed to strengthen onboarding, education, and training of experienced nurses seeking to transition into the oncology ambulatory setting.

During the early stages of program development, we worked closely with our Human Resource Department's Recruitment Team, as well as the system-level Clinical Learning Department, who were instrumental in internally marketing the academy, helping support initial screening of program applicants, and providing faculty support as needed.

Assembling Our Team

With the design for the Transitional Oncology Nurse Academy mapped out, our next challenge was staffing the program. After attending a required preceptor and mentorship program, existing staff were prepared to precept and mentor the new preceptees. We used our institute's internal clinical experts—clinical nurse educators, advanced practice providers (APPs), physicians, nurse scientist, pharmacists—to develop and teach the didactic program. We allocated funds for classroom supplies and resources that we would need for the academy, including laptops, poster boards, and training binders. In addition, because we did not want cost to be a barrier for our potential graduates, we included the cost of Oncology Nursing Society (ONS)/Oncology Nursing Certification Corporation (ONCC) Chemotherapy Immunotherapy Certification as part of the academy program.

Developing Our Candidate Selection Process

Another component essential to the success of the Transitional Oncology Nurse Academy were the nurse candidates themselves. Candidates had to demonstrate leadership, critical thinking, collaboration and teamwork, adaptability, compassion, and empathy throughout the interview process. Final candidates were required to have greater than one year of nursing experience and to have successfully completed a behavioral-based panel interview with department leaders and specialty educators.

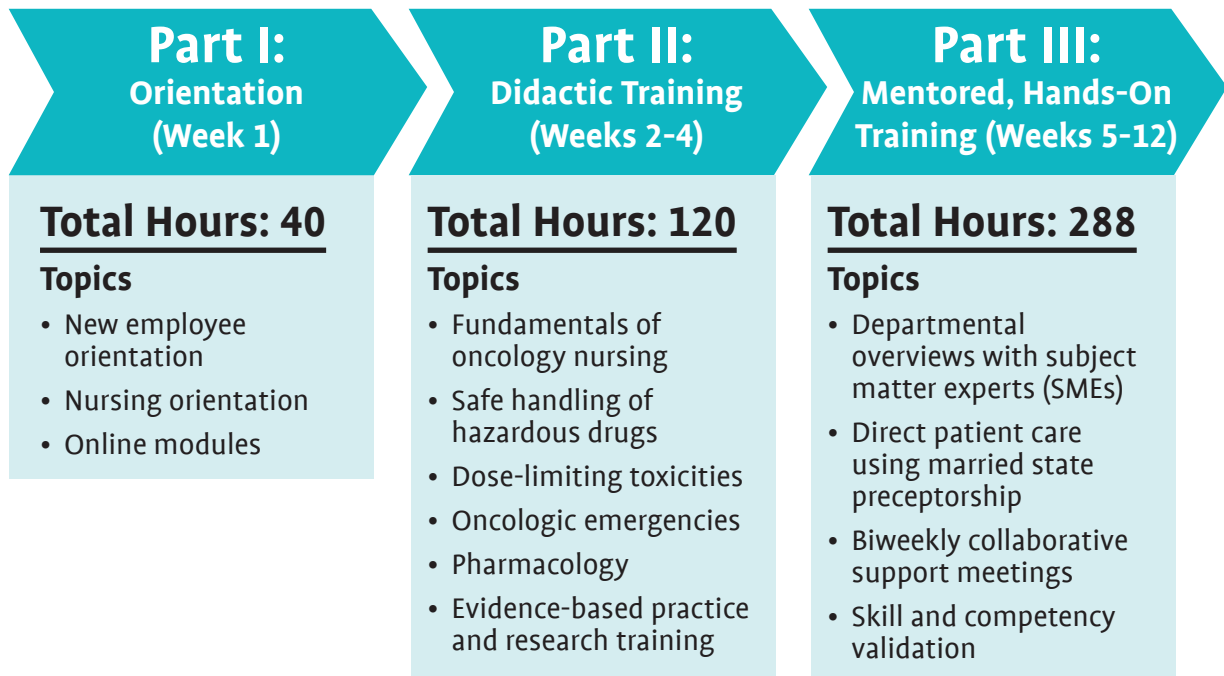
Program Structure and Launch

Our first Transitional Oncology Nurse Academy launched in October 2018. The program took carefully selected nurses from other nursing areas and gave them the oncology-specific knowledge, skills, and onboarding training needed to successfully transition to the ambulatory oncology setting. The program is 12 weeks long and divided into three phases (Figure 1, right).

Phase I. Orientation

During Phase I of the Transitional Oncology Nurse Academy, external nurses completed an initial week of orientation designed to welcome them to Baptist Health South Florida. During the first week, nurses received a tour of Miami Cancer Institute and instruction on:

Figure 1. Structure and Components of Transitional Oncology Nurse Academy



- Practice
- Norms and values
- Electronic medical record (EMR)
- Infection control practices
- Patient experience
- Patient safety
- Human resources and employee relations
- Emergency response
- Cultural diversity and other vital information.

Phase II. Didactic Training

Next, during Phase II of the Transitional Oncology Nurse Academy, nurses began their didactic training, which continued over a three- to four-week period. Didactic content was taught by a multidisciplinary team and covered topics ranging from the fundamentals of oncology nursing, safe handling of hazardous drugs, dose limiting toxicities, preventing and addressing oncologic emergencies, and pharmacology.

In designing the Transitional Oncology Nurse Academy, we aligned didactic content with the most current evidence and standards. For years ONS has emphasized the need for oncology nurses to be “educated in the latest technologies and emerging cancer therapies” to help them stay current.¹⁵ To ensure we met this goal, our team developed a state-of-the-art curriculum based on the latest standards from the American Society of Clinical Oncology (ASCO),¹⁶ ONS,¹⁷ the Commission on Cancer (CoC),¹⁸ ASCO’s Quality Oncology Practice Initiative (QOPI®),¹⁹ and the Infusion Nursing Society,²⁰ as well as research on how to imple-

ment effective preceptorship programs.¹² By the end of the program, academy graduates not only would have additional oncology knowledge and skills to safely care for our patients, but also a greater understanding of current oncology evidenced-based standards.

In addition, because research and evidence are the cornerstones of safe oncology nursing,²¹ during the academy, trainees received four hours of training in research, evidence-based practice, and quality improvement from our PhD prepared nurse scientist. The goal of this training, which included basic skills such as how formulate a PICO(T) (patient, intervention, comparison, outcome and, sometimes, time) question, perform a literature review, structure a unit-based performance improvement project, and evaluate evidence strength and quality, was to ensure all trainees had the basic skills needed to practice evidence-based oncology nursing.

Phase III. Hands-On Training

Following completion of the initial 120-hour didactic immersion, nurses began approximately 300 hours of hands-on training within different clinical areas with experienced oncology mentors. We used the Married State Preceptorship Model to assess learning readiness during the mentoring portion of the academy.^{22,23} The model is a partnership between the preceptor and preceptee and is designed to help transition the preceptor role over time to a resource role. Instead of the preceptor taking a group of patients and the preceptee taking their own set of patients, preceptors and

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preceptees manage their patients together, with the preceptor providing continuous feedback and coaching to ensure that that preceptee thoroughly understands how to care for oncology patients and helping preceptees learn their strengths and opportunities for improvement.²²

We had successfully used the Married State Preceptorship Model in the inpatient setting and found it quite effective for onboarding and developing confident, competent new nurses, as well as retaining staff. The preceptor, preceptee, department educators, and leaders met biweekly to collaboratively support the new nurses and validate the skills they were developing. These touch bases also helped us identify competences that required more education or exposure.

Program Metrics and Goals

To determine if the Transitional Oncology Nurse Academy was successful, we developed and tracked outcomes in eight areas:

1. **Graduation rates:** measured by the total number of admitted nurses that successfully graduated from the program.
2. **Initial readiness for oncology practice:** measured by the percentage of nurses that successfully earned their ONS/ONCC Chemotherapy Immunotherapy Certification within 30 days of completing the academy.
3. **Job placement rates:** measured by the percentage of graduates placed in an oncology unit post-graduation.
4. **Nurse retention rates:** measured by one-year retention on an oncology unit.
5. **Nursing quality:** measured by nursing quality data such as extravasations and central-line associated blood stream infection rates.
6. **Impact on oncology nursing workforce:** measured by the percentage of our total workforce we were able to fill with academy graduates.
7. **Estimated cost savings:** measured by estimated savings to our organization associated with reduced hiring costs and reductions in staff turnover. This outcome was key to the program's sustainability.

8. **Number of internal transfers versus external hires.** This outcome was measured to see if the program met its goal to serve as an early or mid-career bridge for experienced non-oncology nurses (inside and outside our organization) to transition to oncology.

Program metrics and goals are summarized in Table 1, right.

Initial Outcomes

Since we launched the Transitional Oncology Nurse Academy four years ago, we have graduated a total of 35 nurses from 4 cohorts. Currently, the program's graduation rate is 97 percent. Of the graduates, 100 percent successfully earned their ONS/ONCC Chemotherapy Immunotherapy Certification within 30 days of completing the program and were placed in oncology units. Together, these nurses now make up 13 percent of Miami Cancer Institute's total oncology nursing workforce.

In addition, over the two years, we have maintained a 97 percent one-year retention rate, with only one RN leaving their position due to medical reasons. Review of nursing quality data, such as extravasations rates and central-line associated blood stream infection rates, indicate that experienced non-oncology nurses who graduate from the transitional academy perform in a similar fashion to oncology nurses. Internal data from our Human Resources Department suggest that we have saved approximately \$80,000, per nurse, in advertising, sign-on bonuses, and associated work time by preparing existing nurses to transition to oncology rather than seeking outside candidates. Interestingly, approximately 80 percent of the graduates were experienced RNs from outside of our organization with a desire to transition into oncology and only 20 percent of the program's final residents consisted of internal candidates (Figure 2, page 30).

To better understand our cohort characteristics, we sent out an electronic survey, asking participants to share information on previous nursing experience. Results of the survey, which included responses from 22 of our 35 academy graduates (62.9 percent), found that the mean age of program graduates was 35.1 ± 8 years with ages ranging from 26 to 52 years. On average, while nurses with only one year of experience were technically eligible for the transitional academy, the survey found that our nurse graduates had 7.8 ± 5.5 years of previous experience, on average (range: 2 to 25 years) and brought experience in from multiple non-oncology areas.

The most common non-oncology specialties nurse graduates reported having experience with prior to entering oncology were medical/surgical, cardiac/telemetry, intensive care unit/step-down, maternity/labor and delivery, and emergency department nursing. However, graduates also reported experience in other potentially useful areas, including pain management, endoscopy, hospice/palliative care, neurology, quality assurance, infection prevention, public health, and bioethics.

Without question, one of the strongest—and most important—indicators we have used to guide us during the first few years of the transitional academy is feedback from our nurse graduates themselves. Over the past three years, we received feedback on the ways that the Transitional Oncology Nurse

Table 1. Transitional Oncology Nurse Academy Metrics and Goals

Domain	Metrics	Goals
Program graduation rates	Percentage of nurses admitted to transitional academy who successfully graduate	> 90% graduation rate
Initial readiness for oncology practice	Percentage of graduates completing ONS Chemotherapy and Immunotherapy Certification	100% of graduates earn ONS certification course within 30 days of graduation
Job placement rates	Percentage of graduates placed in oncology unit postgraduation	> 90% job placement in oncology
Impact on nursing workforce	Percentage of total oncology nurses at Miami Cancer Institute	To increase total number of oncology nurses
Nurse retention rates	Percentage retention at 1 year	> 90% academy graduate retention at 1 year
Nursing quality	Internal quality metrics	Graduate nurses who provide high-quality care and service
Estimated cost savings	Estimated recruitment and retention costs	Reduce hiring costs through increased nurse retention and reduced staff turnover
Career bridge	Percentage of internal vs. external hires	N/A

ONS = Oncology Nursing Society

Academy prepared them to enter the world of cancer care. Many of our nurse graduates tell us that that the curriculum, carefully chosen teaching staff, and close mentorship helped students feel “confident working while beginning their careers in oncology.”

Overall, these results are consistent with the results of the survey we performed, in which we asked nurses to rate “the quality of the training” they received and “how prepared they were to begin oncology practice after graduating from the Miami Cancer Institute Transitional Oncology Nurse Academy,” respectively, on a scale from 1 to 10 (with 10 being the highest or the most prepared). On average, results showed that respondents rated the quality of their instruction at a 9.4 (median: 9.95) and their preparedness to begin oncology practice at 8.0 (median: 8.0).

Lessons Learned

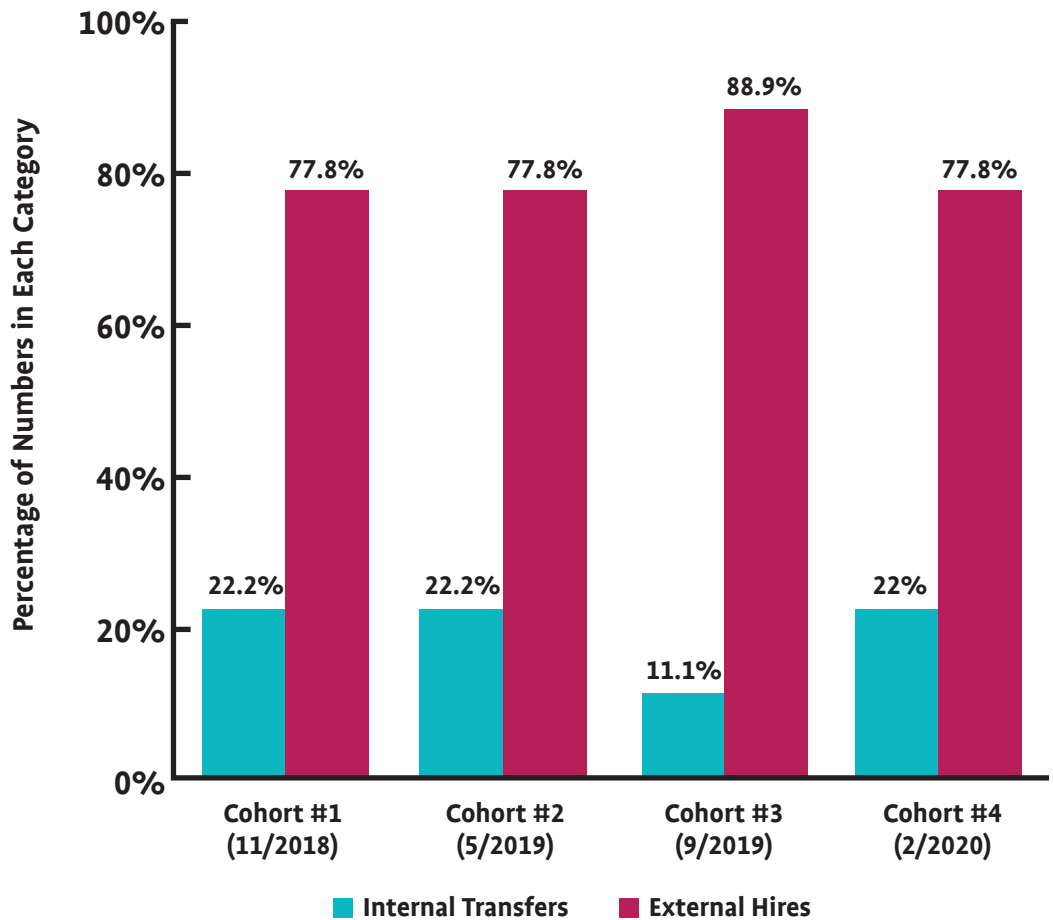
Since the launch of the Transitional Oncology Nurse Academy, we have learned that candidate selection is crucial to your program’s success and retention rate. Leaders must be actively involved in the selection process, and candidates must have a desire to learn and want to care for oncology patients. Staff trained on

how to precept and mentor new staff are also key to standardizing how staff are trained. To reduce faculty cost, tap into your multi-disciplinary experts (specialty educators, APPs, physicians, pharmacists, etc.) and plan out the program far in advance to avoid running into scheduling conflicts. Also, be sure to have backup presenters in case of emergencies. Additionally, integrate organizational policies and procedures into the program, so new staff have a good understanding of processes and policies before completing their onboarding. Finally, conduct the program at minimum, three to four times during the year to keep the groups small and foster learning, engagement, and group bonding and socialization.

Next Steps and Concluding Thoughts


The next step for the Transitional Oncology Nurse Academy is to expand the program and provide oncology education and training to all entities. In 2020 we completed our first onboarding and residency program for BMT nurses. In the upcoming year, we would like to launch a clinical trials residency onboarding program and an APP fellowship program. Additionally, we will continue to incorporate feedback from our residency students to

Figure 2. Percentage of Internal Transfer (Within Our Organization) Versus External Hire Graduates from the Transitional Oncology Nurse Academy Acquired (November 2018 to February 2020) n=36.



make the program more robust for the next group.

To develop Miami Cancer Institute’s Transitional Oncology Nurse Academy, we needed to “think big” and push ourselves to find a sustainable, long-term solution that would help address the ongoing shortage of oncology nurses. The goal of the Transitional Oncology Nurse Academy was to develop a solution that would continually attract experienced nurses to the ambulatory oncology setting. Three key steps were necessary to achieve this goal: 1) assessing the need for the program; 2) presenting a clear and convincing business case of the cost savings and potential benefits to key stakeholders; and 3) ensuring financial and organizational support for the program. To track our success, we developed metrics for success, monitored our outcomes, and communicated our results to drive support for the initiative and help us improve the program. We are extremely proud of our 97 percent graduation and retention rate at one year, and we hope

this article encourages other cancer programs to move forward in developing similar programs. 

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