Leadership and Education for Advanced Practice Providers in Cystic Fibrosis (LEAPP CF)

The Post Graduate Fellowship Pilot

Cynthia Brady1, Cynthia George2, Wendy Looman3, Taylor-James Gilard4, Adrianna Bell5, Jordan Dunltz6

Children’s Respiratory and Critical Care Specialists and Children’s Minnesota 1, Cystic Fibrosis Foundation 2, University of Minnesota School of Nursing3, University of Minnesota School of Medicine4 | Minneapolis, MN

PURPOSE

The Leadership and Education for Advanced Practice Providers (LEAPP) post-graduate fellowship aims to fill a gap in the Cystic Fibrosis (CF) provider workforce and accelerate the progression from novice to competent provider through mentoring and CF curriculum.

BACKGROUND

Cystic Fibrosis is a complex condition with a growing population that requires specialized care. Many Cystic Fibrosis Centers have experienced challenges maintaining the provider workforce due to the shortage of pulmonologists and adult pulmonologists trained in CF care. There is an increasing number of persons with CF (PWCF) as a result of newborn screening and a growing adult CF population. Advanced Practice Providers (APPs), Nurse Practitioners (NPs) and Physician Assistants (PAs) have been providing high quality care and leadership for decades and have the potential to fill this gap. APPs are well suited to provide the specialized, comprehensive care within multidisciplinary teams for PWCF. However, most learn CF care on the job without specialized training or mentorship and face barriers to advancement and full scope practice.

APP TASK FORCE

In 2018, the CF Foundation (CF) convened a task force to evaluate the workforce and make recommendations in address barriers to the full integration of APPs in CF care. A survey of CF Program Directors (DF) and APPs was conducted, and data collected from 107 APPs (59 NPs, 33 PAs; 4 APPs) and 150 DFs.

Survey Results: CF Provider Workforce

- Leadership Roles
- Current Scope of Practice
- College of Practice
- Where do you plan to practice?

Leadership Roles

<table>
<thead>
<tr>
<th>Role</th>
<th>2009</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Director</td>
<td>0%</td>
<td>35%</td>
</tr>
<tr>
<td>Pulmonologist</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>5%</td>
<td>20%</td>
</tr>
<tr>
<td>Physician Assistant</td>
<td>45%</td>
<td>85%</td>
</tr>
<tr>
<td>PA-C</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>NP</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Current Scope of Practice

- Inpatient (41%)
- Outpatient (50%)
- Other (9%)

College of Practice

- Critical Care (50%)
- Pulmonary (45%)
- Other (5%)

Where do you plan to practice?

- Hospital (63%)
- Clinic (26%)
- Other (11%)

Key Survey Findings

- Most CF centers were having difficulty filling physician vacancies.
- APPs were employed as a growing population of CF centers.
- Most APPs were involved in leadership or research activities.
- Many APPs experienced barriers to full scope of practice and professional advancement.

TASK-FORCE RECOMMENDATIONS

1. Establish an APP post-graduate training program in CF
2. Build a comprehensive CF curriculum
3. Enhance Partnerships to Support Full Scope of APP Practice

CURRICULUM

- Four courses comprised of 10-12-week modules
  - Course 1: Clinical care of CF
  - Course 2: Dietary and nutrition care
  - Course 3: Advanced topics in CF care
  - Course 4: Leadership and education for APPs

POST GRADUATE FELLOWSHIP AT A GLANCE

- Fellowship (10 NPs, 3 PAs):
  - Westchester APPs in CF training module
  - Cystic Fibrosis Foundation Fellow Award of $50k FTE for 2 years allows protected time for coursework and mentored CF care
  - Undergraduate courses:
    - Experienced CF provider in home CF Center
    - Professional Mentoring:
      - Small group discussions led by experienced CF APPs

FLIPPING THE CLASSROOM

- Class notes, synchronous, and online virtual case discussions and problem solving with multiple experts.

EVALUATION

- Self-assessment of CF competencies and learning needs at baseline, mid-fellowship, and end of fellowship.
- Clinical mentor assessment of fellows’ competencies at baseline, mid-fellowship, and end of fellowship.
- Knowledge self-check for content mastery in each module.

CURRICULUM AND PROGRAM

- Module and course-level evaluations (case of completion, ability to meet objectives, quality of content and instruction).
- Mid-program survey of fellows and mentors to evaluate progress and identify areas for improvement.

RESULTS

- The program has been well-received by fellows and mentors, with high scores for quality and satisfaction.
- Self-assessment of competencies and knowledge assessments at baseline indicate opportunities for CF-specific development in the program.

DISCUSSION

- LEAPP can build the potential to boost the CF provider workforce and improve access to specialized care for persons with CF.
- LEAPP provides fellows with the opportunity to grow professionally through advanced mastery, leadership and quality improvement training, and mentoring.
- Partnership with University of Minnesota ensures quality and best practices for adult learning.
- Flexibility and adaptability was essential during the development and implementation during the pandemic.
- Rapidly changing CF care with highly effective medications requires up-to-the-minute content expertise.
- LEAPP curriculum could be replicated for other complex chronic conditions that require specialized care.

NEXT STEPS

- Address barriers to full scope of APP practice and professional advancement to improve career satisfaction and motivation.
- Evaluate pilot to refine the program.

ACKNOWLEDGEMENTS

- The LEAPP CF program is funded by the Cystic Fibrosis Foundation.
- Designed by: Marimah Hamidone (Children’s Respiratory and Critical Care Speculation [CRCS]).
- TM: Gopher Graphical Illustrator of University of Minnesota Twin Cities.