Clinical Specialists

Background

An individual in the profession of pharmacy can follow a great number of career paths. In addition to more traditional roles, there are many other clinical pharmacists bringing unique expertise and value to the health care system. Many of these pharmacists specialize in practice areas similar to medical specialties, and some have created unique skills and opportunities. Pharmacist specialties include, but are not limited to the following areas:

- Adult Medicine
- Ambulatory Care*
- Cardiology
- Compounding*
- Critical Care
- Diabetic Care
- Hematology/Oncology
- Hospice
- Immunization Services
- Internal Medicine/General Practice
- Long-Term Care/Geriatrics*
- Nephrology
- Neurology
- Nuclear/Radiopharmacy*
- Nutrition Support
- Pediatrics
- Poison Control
- Psychopharmacy
- Sports Medicine
- Transplant
- Veterinary Pharmacy

*Separate profile available.

Many pharmacists have obtained additional training in a specific disease state or have gained extensive on-the-job experience and have gradually migrated into that clinical area. Most started in traditional pharmacy practice and then pursued the clinical practice area for which they had a passion.

In most cases, clinical specialists do not hold a separate license beyond their pharmacist license. There are opportunities for pharmacists to become certified or credentialed to provide unique services upon achieving adequate experience and, in some cases, passing an exam. While these credentials are generally not required to practice, it documents to employers, peers, and the public that the pharmacist possesses the knowledge and skills to provide specific clinical services.

The mission of the Board of Pharmaceutical Specialties (BPS) is to recognize specialty practice areas, define knowledge and skill standards for recognized specialties, and evaluate the knowledge and skills of individual pharmacist specialists through a certification exam. The BPS offers certification in nuclear pharmacy, nutrition support pharmacy, oncology pharmacy, pharmacotherapy, and psychiatric pharmacy.

The National Institute for Standards in Pharmacist Credentialing (NISPC) offers disease state management certification exams for anticoagulation, asthma, diabetes, and dyslipidemia. The NISPC exams are standardized assessment tools designed to measure the knowledge and judgment of pharmacists providing disease state management services to patients.
Credentials may be offered by other organizations, depending on the clinical area. For example, the American Association of Poison Control Centers (AAPCC) offers a certification exam for clinical specialists in poison information. The exam is offered to pharmacists and other health professionals who have met minimum practice requirements. Regional poison centers are required to maintain a minimum number of certified specialists on staff. The American Academy of Clinical Toxicology (AACT) offers a credentialing process and, upon successful completion of a certification exam, awards diplomat status in the American Board of Applied Toxicology (ABAT), which is an organization for the unique purpose of fostering the development of clinical toxicology among the non-physician, non-veterinarian members of the AACT. While credentials are important for pharmacists practicing in unique areas, work must continue to address competition among health care professionals and compensation for services.

Characteristics

Sixty-nine pharmacist clinical specialists responded to the 2012 *APhA Career Pathway Evaluation Program* survey. Eighty percent of respondents held an entry-level or post-baccalaureate PharmD degree. Twenty-four percent indicated that they also had a non-pharmacy bachelor’s degree and 40% indicated an advanced degree (MA, MS, MBS, PhD, or other). Forty-two percent had been through a residency program, 39% had been through a certificate training program, and 18% reported having been through some form of other training.

Respondents’ average age was 43 years old. Three-quarters (71%) of respondents were female. Income data show the under a quarter (21%) earn less than $100,000, while 69% earn $100,000 or more per year, with 5% earning greater than $150,000. The average time worked per week was 38.7 hours.

A majority of respondents indicated that they were satisfied with their job, with 51% indicating “extremely satisfied” and 42% indicating “somewhat satisfied.” Similarly, most respondents indicated that they felt the job was quite challenging, with 51% indicating “extremely challenging” and 45% indicating “somewhat challenging.”

Insider's Perspective

What aspects of the job are most appealing?
Because of the great variety of clinical specialist positions, work environments, duties, and responsibilities, the aspects of the jobs that were most appealing and least appealing overlap less than in other careers. What is true for one clinical practice is not necessarily true for other practices.

The ability to work on a team with other health care professionals to directly improve patient care was frequently mentioned as the most appealing aspect of a career in clinical practice. Many pharmacists working in clinical areas have a great deal of patient contact, whereas others have minimal contact with patients and work primarily with other health providers.

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*APhA Career Pathway Evaluation Program for Pharmacy Professionals – pharmacist.com*
Respondents also indicated that they spend 36% of their time on patient care services and 16% of their time on medication management services.

**What aspects of the job are least appealing?**
Administration (bureaucracy) and paperwork were both cited by many of pharmacist clinical specialists as one of the least appealing aspects of their jobs. These pharmacists are very satisfied with the work they perform, but do not enjoy the record keeping that needs to be completed to substantiate their services or to quantify outcomes.

Long hours, staffing concerns, and heavy workload were each cited by respondents as well. Notably, pharmacist clinical specialist positions are dependent on patient load and other factors that are beyond control of the pharmacist. One pharmacist commented that there is “too much work for one person to accomplish all tasks.”

**What advice should students and practitioners consider when selecting the option of becoming a clinical specialist?**
Respondents reported that it is important for pharmacist clinical specialists to participate in continual training. As in any clinical practice, a certain level of expertise is expected of the practitioner. Continuing education and training is important to succeed in this environment. One pharmacist clinical specialist commented, “[These positions] require continuous studying/staying on top of current guidelines and literature.”

Some clinical specialists work in fast-paced environments requiring quick decisions, whereas others work in environments that are more structured and self-paced. The demands of the work environment should be considered when choosing a career path or practice that is suited to the pharmacist’s individual preference.

One respondent indicated that it is “necessary to have good communication skills and willingness to spend many extra hours in the workplace as well as outside the workplace, reading, learning, etc.”

Another pharmacist said students should be willing to take advantage of different opportunities, noting, “make sure the practice environment is right for you—which includes the hours and location.”
Critical Factor Ratings

Interaction With People
Interaction with people was cited by some pharmacist clinical specialists as the most appealing aspect of their work. As noted earlier, respondents reported that they spend 36% of their time in patient care areas.

= 6.6

Conducting Physical Assessments
Some of the pharmacist clinical specialist positions will require much interaction with patients and involve conducting physical assessments, whereas other positions will lack these activities altogether.

= 3.2

Interpreting Laboratory Values
It appears that many of the respondents have access to patient laboratory values. The difference in response between conducting physical assessments and interpreting laboratory values is striking. Notably, clinical specialists rated this factor higher than any other group in the survey.

= 6.8

Continuity of Relationships
The extent to which clinical specialists have ongoing or long-term relationships with patients varies by practice setting. For example, pharmacist clinical specialists in pediatrics may develop sustained relationships with children who have a chronic disease, whereas those in critical care may have contact with a patient for only a limited period of time. This range of continuity is reflected in the average being near the midpoint.

= 5.6

Helping People
A pharmacist working in a poison information center or in an intensive care unit, for example, will have a direct impact on an individual’s well being, whereas a pharmacist
focused primarily on pharmacokinetics research will have more of an indirect impact. One practitioner noted, “You have the ability to work with a wide range of patients, pharmacists, and other health professionals.”

= 6.7

Collaboration With Other Professionals
As mentioned previously, some specialties involve extensive patient interaction whereas others involve extensive health professional interaction. Overall, this factor ranked near the top among these respondents. One pharmacist stated enjoyment in “working as a team with other providers.”

= 7.8

Educating Other Professionals
Pharmacist clinical specialists spend time educating other health professionals. The response was mid-range for this critical factor. In addition, many pharmacists in these positions are often required to share their expertise with other members of the health care team.

= 5.7

Variety of Daily Activities
The day-to-day workload of a pharmacist clinical specialist often depends on the medication-related needs of patients. As a result, there is a good deal of variation in their practices.

= 6.5

Multiple Task Handling
There was fairly good agreement among pharmacist clinical specialists, regardless of practice setting, that they often deal with more than one task at a time. The needs of patients and other health professionals often demand prompt attention.

= 6.9
**Problem Solving**
Pharmacist clinical specialists responding to the survey indicated that they rely fairly equally on tried-and-true methods as well as untested alternatives to problem solving, scoring a mid-range 5.8. The extent to which the practice involves the use of algorithms or protocols and the variability of the patient population will influence the general approach to problem solving.

![Survey Rating](https://pharmacist.com/survey_rating.png)

**Focus of Expertise**
Not surprisingly, pharmacist clinical specialists indicated that they lean to the side of having a sharply defined area of expertise. Regardless of practice setting, there will always be general drug-related issues to handle in addition to those issues requiring specialized expertise.

![Survey Rating](https://pharmacist.com/survey_rating.png)

**Innovative Thinking**
Some clinical practice settings are well established and have highly defined expectations, duties, and responsibilities, whereas others will require innovative thinking to help shape and define the scope of practice. Pharmacist clinical specialists tended to agree that innovative thinking is used in their practice setting.

![Survey Rating](https://pharmacist.com/survey_rating.png)

**Applying Scientific Knowledge**
Pharmacist clinical specialists spend a significant portion of their time applying scientific knowledge in their area of expertise, giving this factor a rating of 7.6. The specialized training and expertise pays dividends in being able to apply this knowledge as an important part of their work.

![Survey Rating](https://pharmacist.com/survey_rating.png)

**Applying Medical Knowledge**
Pharmacist clinical specialists spend an even greater amount of time applying medical knowledge in their field. This ranking was the highest for this group.
Creating New Knowledge by Conducting Research
Pharmacist clinical specialists spend most of their time practicing in their area of expertise, providing services and caring for patients. There is opportunity to conduct research but it occupies only 6% of their time.

Management/Supervision of Others
A low mid-range response from participants shows that this group is not very involved in the management and supervisory responsibilities of others. Depending on the practice setting, clinical specialist pharmacists generally work with peers and other health professionals. Their level of supervision of others depends upon staffing levels and extent of teaching conducted at their institution.

Management/Supervision of a Business
Many of the respondents indicated that they spend little to no time managing a business. Only 6% of respondents’ time is spent on business-related activities.

Pressure/Stress
Respondents indicated that they experience pressure/stress at the mid-range level. All pharmacists experience some stress in their workday, which comes with responsibility. The types of pressures and stresses vary depending upon the practice environment.

Work Schedule
Pharmacist clinical specialists often work regular and predictable schedules. There may be
“on call” responsibilities, rotating shifts in some situations, and at times long workdays, which are predictable. 

\[= 6.6\]

### Part-Time Opportunities

Generally, it is difficult to specialize and become an expert in a clinical area on a part-time basis. After becoming a specialist, pharmacists can take on part-time and consultant opportunities.

\[= 3.2\]

### Job-Sharing Opportunities

Job-sharing is not a common practice in this field as reinforced by the low range ranking of this factor. This was the lowest ranked factor in this group.

\[= 2.6\]

### Exit/Re-entry Opportunities

Exit/re-entry opportunities are mid-range for this group.

\[= 4.1\]

### Parental Leave Opportunities

Parental leave opportunities ranked higher than others in the areas of work-related options. Most employers provide the opportunity for parental leave.

\[= 7.1\]

### Leisure/Family Time

A regular and predictable work schedule allows individuals to enjoy free time for leisure/family activities. Not unique to specialists, keeping up with the literature and other professional development activities can take away from this free time, but generally can be
managed effectively and many times done at home. = 6.8

Job Security
Pharmacists who specialize have the added benefit of their experience and expertise adding to the security of their positions. However, as the health system continues to change, increased pressures for accountability of clinical services continues to be a challenge the profession must tackle. = 7.5

Opportunities for Advancement
Pharmacist clinical specialists had mixed opinions on opportunities for advancement. Practice setting, academic affiliation, and career path all can be factored into the perceived opportunity for advancement. = 6.0

Opportunities for Leadership Development
Pharmacist clinical specialists indicated a mid-range response of 6.2 regarding opportunities for leadership development. = 6.2

Community Prestige
Pharmacists are well-respected health professionals. The extent to which their practice directly influences their prestige in the community depends on the visibility of their role to the general public. If recognized as being a “specialist” within the pharmacy profession, it may add to their prestige in the community. = 6.5
Professional Involvement
Active involvement in pharmacy meetings and events creates opportunities for professional development and the sharing of ideas and knowledge among peers. The extent to which a pharmacist gets involved is largely a personal decision. Pharmacist clinical specialists indicated that the opportunity exists for professional involvement in such events. These specialists are often invited to speak on topics in their area of expertise. In addition, they are typically involved in regional or national meetings of associations or societies in their specific practice area.

Income
Pharmacist salaries have increased significantly in the recent past, largely as a result of the pharmacist shortage. Pharmacist salaries in the institutional setting, where most pharmacist clinical specialists work, lag behind salaries in the community setting. Despite this, pharmacist clinical specialists indicated that they were properly compensated.

Benefits (vacation, health, retirement)
Benefits often go hand-in-hand with salary. Most of the respondents indicated that they receive a better than average benefits package.

Geographic Location
The highly focused practices of pharmacist clinical specialists may limit geographic possibilities where other traditional opportunities exist. While most urban areas have positions, there is a growing need in rural areas for clinical specialists.

Working Remotely
There is little opportunity for a clinical specialist pharmacist to work remotely due to the need for access to patient charts, working as a team, and other necessarily on-site responsibilities.
Autonomy
As a licensed professional, pharmacists have been granted certain authorities and accepted certain responsibilities; as a result, pharmacists generally have autonomy within the professional scope of practice. Pharmacists in this setting indicated an upper range rating of 8.3 for this factor giving it the second highest ranking for clinical specialists.

Self-Worth
Pharmacists practicing in clinical specialties are often pursuing careers that fulfill personal and professional ideals. There is general agreement among these pharmacists that their practice creates self-worth.

Future Focus
Depending on the position, clinical specialist pharmacists can be on the cutting edge of science in their respective disciplines. Although day-to-day decisions are based on the present, the underlying focus for many of these pharmacists is on what’s new and what’s on the horizon.

Professional Prestige
Pharmacists practicing in a specific clinical area have opportunities to make a name for themselves through achievements in practice, research, or other scholarly activities. Pharmacists in clinical practice are often called upon to share their expertise with other pharmacists through continuing education programs or other venues. As a result, they become better known and often hold a more prestigious position in the profession.
Unique Practice Environment
The practice environment of pharmacist clinical specialists varies by disease state. More often than not, these pharmacists are working away from traditional pharmacy practice settings. However, clinical specialists in traditional pharmacy practice are having tremendous impact on patient care.

= 8.2

Advanced Degree
An advanced degree is not necessarily required to practice as a clinical specialist. However, additional training through residency or fellowship programs or extensive practice experience is required to achieve the level of competence needed to function as a specialist. There was a broad range of response to this question among practicing pharmacist clinical specialists. This may represent a view that the education and training required to obtain a PharmD degree is necessary or may reflect the need for other types of additional training.

= 5.3

Entrepreneurial Opportunity
The practice of a pharmacist clinical specialist is less entrepreneurial that many others. There was variability among responses from pharmacists indicating that the practice of some of these clinical specialists is more entrepreneurial in nature.

= 3.7

Additional Training
If there is any one factor on which there is almost universal agreement, it is clear that additional training is required for pharmacists to practice in a specific clinical area. This factor has one of the highest rankings among all careers surveyed. Responses to the survey noted several types of additional training required to specialize. Residency or fellowship training programs are a logical first step for new graduates who have decided on a career path. Certificate training programs are also available, providing highly focused training for both new graduates and practicing pharmacists.

= 8.0

Interacting With Colleagues
Respondents indicated that they tend to interact with coworkers on a regular basis.
Travel
For the most part, these positions have lower needs to travel for day-to-day activities. However, attending state, national, or international meetings provides some travel opportunities.

Writing
Respondents were in the upper mid-range regarding writing. Respondents listed preparation of manuscripts as one of the reasons for writing.

Working With Teams
Respondents tend to have some team-related projects. In addition, they tend to work in teams to discuss patient care.
## Mean Scores for Critical Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Score</th>
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<tbody>
<tr>
<td>1. Interaction with people</td>
<td>6.6</td>
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<tr>
<td>2. Performing physical assessments</td>
<td>3.2</td>
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<tr>
<td>3. Interpreting laboratory values</td>
<td>6.8</td>
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<tr>
<td>4. Continuity of relationships</td>
<td>3.6</td>
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<tr>
<td>5. Extent to which effect is direct</td>
<td>6.7</td>
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<tr>
<td>6. Collaboration with other professionals</td>
<td>7.8</td>
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<td>12. Innovative thinking</td>
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<tr>
<td>13. Applying scientific knowledge</td>
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<tr>
<td>15. Creating new knowledge by conducting research</td>
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<tr>
<td>16. Managing others</td>
<td>4.1</td>
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<td>17. Managing business operations</td>
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<td>18. Pressure/Stress</td>
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<td>19. Work schedule</td>
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<td>20. Part time opportunities</td>
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<td>21. Job sharing</td>
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<td>22. Exit and re-entry</td>
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<td>23. Parental leave</td>
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<td>24. Free time for leisure/family activities</td>
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<td>25. Job security</td>
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<td>26. Opportunities for advancement</td>
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<td>27. Opportunities for leadership development</td>
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<td>28. Community prestige</td>
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<td>29. Professional involvement</td>
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<td>30. Income</td>
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<td>31. Benefits (vacation, health, retirement)</td>
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<td>32. Geographic location</td>
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<td>34. Autonomy</td>
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<td>36. Future focus</td>
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<td>41. Additional training</td>
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<tr>
<td>42. Interacting with co-workers</td>
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<tr>
<td>43. Travel</td>
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<tr>
<td>44. Writing</td>
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<tr>
<td>45. Working with teams</td>
<td>7.4</td>
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</table>
Reference

Professional Organizations
American Academy of Clinical Toxicology (AACT)
6728 Old McLean Village Drive, McLean, VA 22101
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www.clintox.org

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American College of Clinical Pharmacy (ACCP)
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