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The Role of the PharmD as part of the Ambulatory Care Team

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Disclosure

Troy Cisneros, MD, Jonathan Ignacio, MD, MPH and Natalie Thom, MD have no relevant financial conflicts of interest related to this activity.



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Learning Objectives

- Review the history of Clinical Pharmacy and specialties within Pharmacy practice
- Map the educational process of becoming a Doctor of Pharmacy (PharmD)
- Describe the functions and contributions of a PharmD, within residency program learning experiences
- Recognize clinical challenges for implementing a PharmD within practice settings
- Explore future directions of PharmDs in the ambulatory care setting



Common Scenarios in the Ambulatory Care Setting



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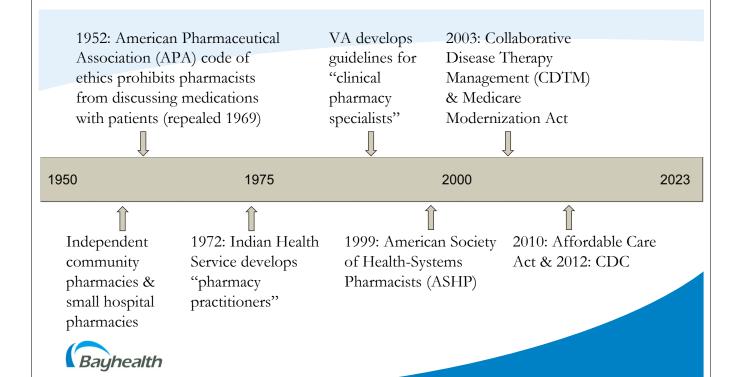
Have you ever heard your patient say...

- "I'm not sure what medications I'm taking. I take so many of them. Sometimes I have a hard time keeping track of them."
- "I went to go pick up my medication and it's \$500."
- "Is there something else you can prescribe that my insurance *WILL* cover?"
- "I have no idea why I'm taking that medication."
- "I went to the pharmacy to pick up my medication and the pharmacist says it isn't covered/not available for pick up."
- "When I left the hospital they changed all of my medications around. I don't know which ones I'm supposed to be taking now."



Evolution of Pharmacy in the Ambulatory Care Setting





Pathway to Becoming a PharmD



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Doctor of Pharmacy timeline:

- 2-4 years of prerequisite work & 4 years professional school
- North American Pharmacist Licensure Examination & Board certifications
- PGY-1: general competencies
- PGY-2: focus on a specific area of outpatient practice
 - Areas of focus: ambulatory care, cardiology, neurology, pediatric, geriatric, psychiatric, and pain management & palliative care.
- Fellowship: postgraduate training in research in a specific area.



Core Functions



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Scope of PharmD in Ambulatory Care Team

- During scheduled visits, evaluating patients for baseline knowledge, attitudes, beliefs and behaviors regarding medical conditions, medications, and medication use
- Ordering tests related to monitoring the safety and/or efficacy of drug therapy
- Identifying medication-related barriers to attaining treatment goals and formulating individualized plans to resolve these barriers through shared decision making with patients
- Consulting with other members of the health care team and referring patients per referral criteria
- Initiating, adjusting, and discontinuing therapy based on recommended guidelines



Scope of PharmD in Ambulatory Care Team

- Communicating urgent matters immediately to the PCP, which are defined by the CPA and/or specific protocols (eg, critical blood pressures, pulse rates, plasma glucose levels)
- Following up with patients, either by phone or in person, as frequently and long as necessary to ensure treatment goals are met
- Recruiting high-risk and/or high-cost patients who would likely benefit the most from disease state management or comprehensive medication management
- Provide education and guidance while working in physician residency programs



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Contributions



Pharmacists as Problem Solvers

| Problem | Pharmacist Assistance |
|--|-----------------------|
| "I'm not sure what medications I'm taking, I take so many. Sometimes I have a hard time keeping track of them." | Polypharmacy |
| "I went to go pick up my medication and it's \$500." | Cost minimization |
| "Is there something else you can prescribe that my insurance WILL cover?" | Formulary Review |
| "I have no idea why I'm taking that medication." | Patient Education |
| "I went to the pharmacy to pick up my medication and the pharmacist says it isn't covered/not available for pick up." | Prior Authorization |
| "When I left the hospital they changed all of my medications around. I don't know which ones I'm supposed to be taking now." | Transition of Care |



Utility of PharmD in Ambulatory Care

- A 2010 meta-analysis study found that patient health improves significantly when pharmacists work with doctors and other providers to manage patient care¹
- Safety Outcomes
 - Adverse Drug Events **reduced by 47%** in pharmacist-provided care group
- Therapeutic Health Outcomes
 - HbA1c reduction of 1.8%
 - o LDL cholesterol reduction of 6.3
 - o Blood pressure
 - SBP reduction of 7.8 mmHg
 - DBP **reduction of 2.9** mmHg



Impact of a PharmD in Ambulatory Care

- Estimated annual cost of drug-related morbidity and mortality resulting from non-optimized medication therapy was \$528.4 billion in 2016²
 - o Equivalent to 16% of total US health care expenditures in 2016
- Centers for Medicare and Medicaid Services³
 - Pharmacists worked closely with Medicaid patients for 1 year
 - Nearly 80% of medication issues resolved after 4 encounters
 - Estimated annual savings of \$1,123 per patient on medication claims and \$472 per patient on medical, hospital, and ED expenses



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Current Practice



Current Practice

- Pharmacy resident: Dr. Ashley Gosner
- Ambulatory Care Pharmacist: Dr. Cameron Golden
- Clinical functions include patient recommendations about:
 - o Medication management: Diabetes, heart failure, COPD
 - Polypharmacy
 - Cost minimization/social barriers
 - Transitions of care
 - Medication reconciliation
 - Opioid management







Current Practice

Patient Appointments (Patient Education)

Precepting

Social Barriers

Lecture Series

Journal Clubs



Clinical Challenges



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Collaborative Practice Agreement (CPA)

- A formal agreement between a licensed provider and another licensed clinician that addresses practice workflow
- A licensed provider makes a diagnosis, supervises patient care, and refers patients to a pharmacist under a protocol, allowing the pharmacist to perform specific patient care functions
- Pharmacists are able to operate as part of a healthcare team, with access to EHRs, managing patients' chronic diseases
- Laws and regulations vary state by state



Collaborative Practice Agreement (CPA)

- Statewide protocols initiated by legislative bodies to address specific public health issues
- Variations in state laws, specific limitations
 - New York, New Hampshire CPAs limited to inpatient setting
 - Delaware currently <u>does not</u> have legislation for CPAs



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Provider Status

- Pharmacists do not have provider status under Medicare
 - Medicare pays 85% of physician fee schedule (PFS) rate for services billed by NPs and PA-Cs⁹
 - Pharmacists are excluded
- Limits Medicare beneficiaries' access to services



Reimbursement

- Clinical pharmacist service coverage beyond Part D does not exist
- Direct vs Indirect
- Pharmacist Billing
 - 99605 MTM services, initial encounter
 - 99606 Follow-up encounter
 - 99607 Each additional 15 minutes



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FUTURE DIRECTIONS



Benefits at Bayhealth, and Beyond

- Financial gain
- Cost reduction
- ACO metrics where our pharmacists are involved
 - Hemoglobin A1c Poor Control (> 9%)
 - Statin Therapy for Prevention and Treatment of CVD
- Antibiotic stewardship



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Bayhealth as an Advocate

- PGY1 Pharmacy Residency
 Program (two program options)
 - Inpatient Healthcare
 - Ambulatory Care
- Community Outreach
- Population Health Pharmacists
 - Pharmacists helping to meet certain population milestones





Legislation

- Provider Status:
 - Congress
 - HR-2759: Pharmacy and Medically Underserved Areas Enhancement Act (introduced in April 2021)¹⁰
 - HR-7213: Community Access to Pharmacist Services Act (introduced in March 2022)¹¹
- Collaborative Practice Agreements:
 - All US states have legislation in place for CPAs, except Delaware
 - Delaware Senate HB 399 (Signed in October 2022)¹²





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Advocacy

- American College of Clinical Pharmacy (ACCP)
- American Society of Health-System Pharmacists (ASHP)
- American Pharmacists Association (APhA)
- You!

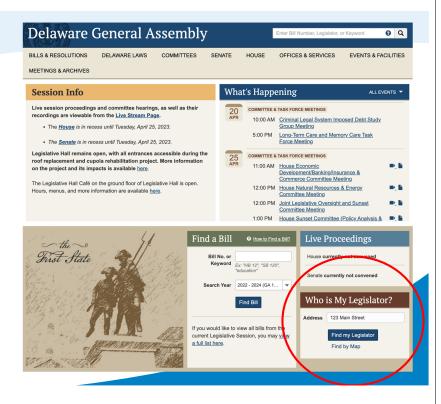




Contact your representatives!

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References

- Chisholm-Burns MA, Kim Lee J, Spivey CA, et al. US pharmacists' effect as team members on patient care: systematic review and meta-analyses. Med Care. 2010;48(10):923-933. doi:10.1097/MLR.0b013e3181e57962
- Watanabe JH, McInnis T, Hirsch JD. Cost of Prescription Drug-Related Morbidity and Mortality. Ann Pharmacother. 2018;52(9):829-837. doi:10.1177/1060028018765159
- Smith M, Giuliano MR, Starkowski MP. In Connecticut: improving patient medication management in primary care [published correction appears in Health Aff (Millwood). 2011 Apr;30(4). doi: 10.1377/hlthaff.2011.0002] [published correction appears in Health Aff (Millwood). 2011 Jun;30(6):1217]. Health Aff (Millwood). 2011;30(4):646-654. doi:10.1377/hlthaff.2011.0002
- 4. Centers for Disease Control and Prevention. Collaborative Practice Agreements and Pharmacists' Patient Care Services: A Resource for Pharmacists. Atlanta, GA: US Dept. of Health and Human Services, Centers for Disease Control and Prevention; 2013.
- 5. Giberson S, Yoder S, Lee MP. Improving Patient and Health System Outcomes through Advanced Pharmacy Practice. A Report to the U.S. Surgeon General. Office of the Chief Pharmacist. U.S. Public Health Service. Dec 2011.
- Carmichael JM, Hall DL. Evolution of ambulatory care pharmacy practice in the past 50 years. Am J Health Syst Pharm. 2015 Dec 1;72(23):2087-91. doi: 10.2146/ajhp150627. PMID: 26581935.
- Urick BY, Meggs EV. Towards a Greater Professional Standing: Evolution of Pharmacy Practice and Education, 1920-2020. Pharmacy (Basel). 2019 Jul 20;7(3):98. doi: 10.3390/pharmacy7030098. PMID: 31330761; PMCID: PMC6789879.
- 8. Centers for Disease Control and Prevention. Advancing Team-Based Care Through Collaborative Practice Agreements: A Resource and Implementation Guide for Adding Pharmacists to the Care Team. Atlanta, GA: Centers for Disease Control and Prevention, U.S. Department of Health and Human Services; 2017.
- 9. Nutescu, E. A., & Roller, L. D.. Reimbursement for Clinical Pharmacy Services: Is There a Role for Facility Billing? American Society for Health-System Pharmacists, N.d.
- 10. Rep. Butterfield, G. K. [D-N.-1. (2021, April 23). H.R.2759 117th Congress (2021-2022): Pharmacy and Medically Underserved Areas Enhancement Act [Legislation]. http://www.congress.gov/. 2021 Apr 23.
- 11. Rep. Kind, R. [D-W.-3. (2022, March 25). H.R.7213 117th Congress (2021-2022): Equitable Community Access to Pharmacist Services Act. [Legislation], http://www.congress.gov/. 2022 Mar 25.
- 12. Bennett, R., Johnson, R. K., Pinkney, S., Baumbach, R., Walker, D., Williams, K., & Mantzavinos, S. House of Representatives 151st General Assembly House Bill N. 399. An Act to Amend title 24 of the Delaware Code Relating to Practice of Pharmacy. 2022 May 3.





THANK YOU QUESTIONS?