

Conflict or coherence? Comparing Entrustable Professional Activities with pharmacists' daily tasks and employer-advertised skills

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Background

Labor market data show that pharmacists are taking on increasingly diverse roles. Triangulation of employer advertised skills in pharmacist job postings, national occupational data on job duties, and COEPA's entrustable professional activities (EPAs) suggest that high-demand skills may need greater attention in pharmacy curricula. It is essential to align PharmD education including EPAs with professional tasks and activities to fully prepare graduates with the right skills to land their first job in this highly competitive environment.

Objective

To compare whether pharmacists' daily tasks and employer advertised skills are aligned with the EPAs that guide schools in preparing practice-ready pharmacists.

Methods

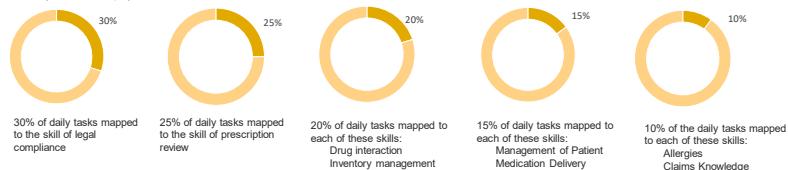
The Occupational Information Network (O*NET), developed by the US Department of Labor, is a public database of occupational information including job duties. Lightcast (formerly Burning Glass) is an analytics platform that provides data on more than one billion job postings. We crosswalked pharmacists' 20 most frequently performed tasks from 2022 (O*NET), the top 50 advertised skills within pharmacists' job descriptions (Lightcast) in 2021/2022, and the most recent EPAs within the COEPA framework. Two licensed pharmacists independently prepared the crosswalk; disagreements were discussed to achieve consensus. The differences in duties/skills between the 3 sources were compared.



Results

Top 20 Daily Pharmacist Tasks Mapped to Employer Advertised Skills

The percent of daily tasks from Table 1 that mapped to an advertised employer skill, listed below each graph, is displayed as a percentage. Employer skills that map to ≥2 daily tasks are displayed.



Top 20 Daily Pharmacist Tasks Mapped to Entrustable Professional Activities (COEPA)

The percent of daily tasks from Table 1 that mapped to an EPA (Table 2).

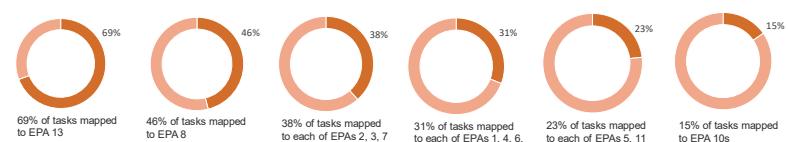


Table 2. Entrustable Professional Activities (COEPA)

1. Collect information necessary to identify medication-related problems and health-related needs.
2. Identify information to determine patient's medication-related problems and health-related needs.
3. Create a care plan in collaboration with the patient, others trusted by the patient, and other health professionals to optimize pharmacologic and nonpharmacologic treatment.
4. Contribute patient-specific medication-related expertise as part of an interprofessional care team.
5. Answer medication-related questions using scientific literature.
6. Implement a care plan in collaboration with the patient, others trusted by the patient, and other health professionals.
7. Fulfill a medication order.
8. Educate the patient and others trusted by the patient regarding the appropriate use of a medication, device to administer medication, or self-monitoring test.
9. Monitor and evaluate the safety and effectiveness of a care plan.
10. Report adverse drug events and/or medication errors in accordance with site specific procedures.
11. Deliver medication or health-related education to health professionals or the public.
12. Identify populations at risk for prevalent diseases and preventable adverse medication outcomes.
13. Perform the technical, administrative, and supporting operations of a pharmacy practice site.

Table 1. Top 20 Daily Pharmacist Tasks in 2022

T1. Review prescriptions to assure accuracy, to ascertain the needed ingredients, and to evaluate their suitability.
T2. Assess the identity, strength, or purity of medications.
T3. Provide information and advice regarding drug interactions, side effects, dosage, and proper medication storage.
T4. Analyze prescribing trends to monitor patient compliance and to prevent excessive usage or harmful interactions.
T5. Maintain records, such as pharmacy files, patient profiles, charge system files, inventories, control records for radioactive nuclei, or registries of poisons, narcotics, or controlled drugs.
T6. Collaborate with other health care professionals to plan, monitor, review, or evaluate the quality or effectiveness of drugs or drug regimens, providing advice on drug applications or characteristics.
T7. Plan, implement, or maintain procedures for mixing, packaging, or labeling pharmaceuticals, according to policy and legal requirements, to ensure quality, safety, and proper disposal.
T8. Order and purchase pharmaceutical supplies, medical supplies, or drugs, maintaining stock and storing and handling it properly.
T9. Compound and dispense medications as prescribed by doctors and dentists, by calculating, weighing, measuring, and mixing ingredients, or oversee these activities.
T10. Contact insurance companies to resolve billing issues.
T11. Advise customers on the selection of medication brands, medical equipment, or healthcare supplies.
T12. Teach pharmacy students serving as interns in preparation for their graduation or licensure.
T13. Provide specialized services to help patients manage conditions, such as diabetes, asthma, smoking cessation, or high blood pressure.
T14. Refer patients to other health professionals or agencies when appropriate.
T15. Work in hospitals or clinics or for Health Management Organizations (HMOs), dispensing prescriptions, serving as a medical team consultant, or specializing in specific drug therapy areas, such as oncology or nuclear pharmacotherapy.
T16. Update or troubleshoot pharmacy information databases.
T17. Manage pharmacy operations, hiring or supervising staff, performing administrative duties, or buying or selling non-pharmaceutical merchandise.
T18. Prepare sterile solutions or infusions for use in surgical procedures, emergency rooms, or patients' homes.
T19. Offer health promotion or prevention activities, such as training people to use blood pressure devices or diabetes monitors.
T20. Assay radiopharmaceuticals, verify rates of disintegration, and calculate the volume required to produce the desired results, to ensure proper dosages.

Implications

Based on pharmacists' reported tasks and employers' desired skills, the legal and technical requirements of prescription processing and operational management of a pharmacy are highly desirable. This is in stark contrast to the EPAs that focus on the Patient Care Process.

Reference:

AACP Curriculum Outcomes and Entrustable Professional Activities (COEPA 2022). American Association of Colleges of Pharmacy. Updated 11 November 2022. 16 June 2023. Available at: <https://www.aacp.org/sites/default/files/2022-11/coepa-document-final.pdf>