

Prescribing Knowledge & Practice Patterns of Advanced Practice Nurses in Ohio

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Background

- Prescribing by APRNs is influenced by their education and knowledge, self efficacy, clinical settings, collaborating partners and costs (Gielen et al, 2014; Hussein & Brow, 2014; Buckley et al, 2013), Dawson & Lighthouse, 2010, Kennedy-Malone, et al, 2008).
- As the number of APRNs have grown, the number of prescriptions being written have grown. Changes in prescriptive authority have occurred and vary across state lines.
- Little is known about APRN prescribing knowledge and practices after these changes occur.

Purpose

Explore the medication knowledge and prescribing practices of APRNs in Ohio

Sample

- Convenient sample**
 - 588 APRNs obtained from state of Ohio data base
 - Response rate 10%
- Demographics**
 - Majority work full time (80%)
 - Majority prepared at MSN level (90%)
 - Years of experience as APRN
 - < 5 yrs - 44.7%
 - 6-15 yrs - 34.6%
 - >15 yrs - 21.6%
- Place of employment**
 - Primary care setting - 36.3%
 - Acute care setting - 36.7% (ER/hospital)
- Population Served**
 - Adult/geriatrics - 38.5%
 - Family - 37.4%
 - Child/Adolescent - 18.9%
 - Mental Health - 5.7%
- Prescribing practices**
 - Currently prescribe medications - 96.8%
 - Prescribe Schedule II drugs - 75%

Instruments

- Descriptive Survey using SurveyMonkey®**
 - Demographics
 - Practice patterns & medication knowledge
- IRB approval obtained

Results

MEDICATION KNOWLEDGE

Original pharmacology course from	86%
- University	
- Continuing education	30.5%
Obtain information about medications from (always or frequently)	
- Mobile device	73%
- Internet (website)	45%
- Pharmacists	43%
- Drug textbook	32%
- Collaborating Physician	32%
- Collaborating APRN	23%
- Package insert	15%

PRESCRIBING PATTERNS

I prescribe Schedule II drugs for:	68%
- Acute pain	27%
- Chronic pain	28%
- Stimulants	
Commonly prescribed medications (>1x/day) by APRNs	
- Antibiotics	54%
- Respiratory medications	41%
- Anti-hypertensives	37%
- Analgesics	37%
- Cardiac medications	36%
- Gastric medications	36%

Correctly Identified Common Drug Interactions

Warfarin & cimetidine	35%
Methotrexate & trimethoprim-sulfamethoxazole	30%
Amoxicillin & acetaminophen with codeine	58.6%
Amantadine and ipatropium bromide	20.56%
Atenolol and ranitidine	33%
Digoxin and clarithromycin	56.9%

Practice Implications

- The majority of APRN respondents indicate they currently prescribe medications, and the majority also prescribe Schedule II drugs.
- Respondents indicate the original knowledge of Advanced Pharmacology came from a University course.
- Respondents primarily use a mobile device to obtain additional medication prescribing knowledge, with fewer utilizing the package insert or other team members
- Respondents most commonly prescribe Schedule II medications for acute pain.
- Antibiotics continue to be the most commonly prescribed medication by APRNs.

Discussion

- APRNs consider prescribing medications to be an important component of practice.
- Future education of Advanced Pharmacology for APRNs may emphasize use of healthcare team members, such as pharmacists as valuable resources. The importance of package inserts may also need additional attention. Emphasis on common drug interactions remains important.
- Future research will focus on:
 - best practices for Advanced Pharmacology initial education and continuing education
 - knowledge acquisition of new medications available and adoption into practice

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