Residents’ Prescription Writing for Nonpatients

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The ability to write prescriptions is one of the most important new responsibilities that residents acquire after graduating from medical school. During their regular duties, residents’ prescription ordering is monitored. However, little is known about residents’ prescription writing for individuals who are not their patients, which occurs outside of supervision by attending staff.

Previous studies have shown that 65% to 83% of physicians prescribe medications for themselves or family members. At least 2 studies have specifically examined resident prescribing patterns for nonpatients. Clark et al demonstrated that during an 8-month period, 23% of residents at a university medical center had written at least 1 nonpatient prescription for psychoactive drugs (eg, narcotic analgesics, muscle relaxants, and minor tranquilizers), mostly for family, friends, and fellow residents. More recently, Christie et al noted that 52% of residents at 4 internal medicine training programs prescribed medications for themselves. While these studies have established that many residents write prescriptions for nonpatients, little is known about the specific medications they prescribe or the variables that affect their decision to write such prescriptions. We studied which factors influence residents’ decision to write prescriptions for nonpatients in a sample of internal medicine and family practice residents at a community hospital.

METHODS
A 6-page survey was approved by the hospital’s institutional review board and distributed in December 1997 to all internal medicine and family practice residents at Christiana Care Health System (Wilmington, Del). Questionnaires were completed anonymously and consisted of 12 hypothetical scenarios that detailed situations in which a prescription might be written for a nonpatient (BOX), as well as questions eliciting residents’ self-reports of having written prescriptions for nonpatients or having received a prescription as a nonpatient. We also obtained simple demographic information. We defined a nonpatient as an individual not under the resident’s care during the course of his or her duties as a house officer.

Context Writing prescriptions is one of the most tangible new responsibilities that residents acquire after graduating from medical school. During their regular duties, house officers’ prescription writing is carefully monitored. Little is known, however, about residents’ patterns of prescription writing outside of supervision or about residents’ knowledge of the ethical and legal guidelines that regulate prescription writing.

Objective To study what factors influence residents’ decision to write prescriptions for nonpatients.

Design, Setting, and Participants Survey distributed in December 1997 to 92 internal medicine and family practice residents at a US community-based teaching hospital. Eighty percent responded.

Main Outcome Measures Self-reported prescribing activities for nonpatients and for individuals in 12 hypothetical vignettes.

Results Eighty-five percent of respondents reported having written prescriptions for nonpatients. Based on their responses to the vignettes, under certain circumstances, up to 95% of residents would write a prescription for an individual who is not their patient (eg, a sibling). Thirteen percent of residents believed that some ethical guidelines on prescription-writing activity existed. Only 4% of residents reported being aware of federal or state laws addressing the appropriateness of physician prescription writing for nonpatients. None of the residents were able to describe the circumstances that make prescription writing for nonpatients illegal or unethical based on legal statutes or ethical guidelines, respectively.

Conclusions In a sample of community-based internal medicine and family practice residents, unsupervised prescription writing by residents for individuals who are not their patients is a common occurrence. Since residency training is a time when practice habits are established, it is important that all residents learn about the ethical, legal, and liability implications of writing prescriptions for nonpatients.
Hypothetical Scenarios Involving Nonpatient Prescription Writing

1. While working in the medical clinic, one of the secretaries whom you know well tells you about her hay fever and asks if you would write her a prescription for her allergies. Several of her friends take Claritin (loratadine) and told her how well it works for them. She sees a physician regularly but forgot to ask for the medication at her last visit. Her physician is away on vacation and her allergies are getting worse. How likely are you to give her a prescription for Claritin?

2. An accountant that you met last month at the local fitness club hurt his back yesterday playing racquetball. He has had intermittent problems with low back pain in the past and commented that he has tried ibuprofen and naproxen before, but they did not work well. However, he has taken the nonsteroidal anti-inflammatory drug Voltaren (diclofenac) before and it worked well at relieving the pain. He asks you for a prescription. How likely are you to write him a prescription for Voltaren?

3. A 35-year-old unit clerk in the hospital is flying to Europe tomorrow for a 1-week vacation. She is worried that she is going to have problems with sleeping during the trip because of jet lag. She asks if you would write her a prescription for a few sleeping pills. How likely are you to give her a prescription for a benzodiazepine such as Restoril (temazepam)?

4. While visiting you, your brother tells you that for the past 2 days he has been experiencing left maxillary sinus pain, green discharge from the left nostril, and low-grade fevers. The symptoms are suggestive of acute bacterial sinusitis. He has no known drug allergies and has taken various antibiotics in the past without problems. How likely are you to give him a prescription for antibiotics?

5. A 36-year-old female nurse who underwent tubal ligation 3 years ago tells you that she has a urinary tract infection and asks for a prescription of Bactrim (trimethoprim/sulfamethoxazole.) Her last episode was 1 year ago. She has taken Bactrim before without problem. How likely are you to write her a prescription for Bactrim?

6. A college student who is spending a month in the hospital as an observer asks you for a prescription for a few pills of Xanax (alprazolam) to help him sleep at night because of anxiety about upcoming examinations. He is a bright and competent student, but he was late coming into the hospital the past 2 Mondays because he has been tired from “partying” with friends during the weekends. How likely are you to give him a prescription for Xanax?

7. One of the hospital volunteers that you know well complains of allergic rhinitis symptoms. She saw an advertisement for Vancenase (beclomethasone) nasal steroid spray and asks if you would give her a prescription so she can try it. How likely are you to give her a prescription for Vancenase nasal spray?

8. One of your fellow residents fractured his index finger yesterday while trying to do some handiwork at home. He was seen in the emergency department, where the finger was splinted. The emergency department staff forgot to give him pain medication, and he asks if you would write him a prescription for some Tylenol 3 (acetaminophen with codeine). How likely are you to give him the prescription?

9. Your 3-year-old daughter starts complaining of right ear pain. Using an otoscope, you look in her ear and discover that she has an inflamed eardrum consistent with otitis media. Your child’s pediatrician is on vacation. Rather than contacting the covering physician, who does not know your child, how likely are you to prescribe an antibiotic for your daughter?

10. Your next-door neighbor, who moved from New York 3 months ago, stops by on a Friday evening complaining of a flare-up of his gout in the right great toe. He ran out of his prescription of Indocin (indomethacin) from his last physician and is asking if you would renew it for him. He has not found a physician in Delaware yet, but he plans on getting one. How likely are you to give him a prescription for Indocin?

11. A friend of your parents, someone you have known since you were a child, pulls you aside at a family gathering. She was seen in the local emergency department 2 days ago for a fractured toe. The toe was appropriately “buddy taped” to the adjacent toe, and she was given a prescription for Motrin (ibuprofen). However, she mentions to you that the toe is still hurting and the pain is unrelied by the Motrin. She asks if you would write her a prescription for Tylenol 3 (acetaminophen with codeine), which she found to be effective a couple of years ago after undergoing a tooth extraction. How likely are you to give her the prescription?

12. Since moving to Delaware, you have developed symptoms of seasonal allergies every spring. How likely are you to write a prescription for yourself for a medication such as the nonsedating antihistamine Claritin or Zyrtec (cetirizine)?

In the 12 hypothetical scenarios, we varied a number of factors that might affect the likelihood of prescribing medication for a nonpatient. These included the individual’s relationship to the house officer, the condition being treated, the medication requested, whether the nonpatient had a primary care physician, and the probability that the nonpatient had a history of substance abuse. Using a 4-point Likert scale (1, very likely; 2, likely; 3, unlikely; and 4, very unlikely), residents were asked to rate how likely they were to write the prescription. The association of demographic variables with the likelihood of writing prescriptions was analyzed using the χ² test or analysis of variance, as appropriate.

RESULTS
Seventy-four of 92 residents completed the survey (response rate, 80%); 57% were male. Thirty-five percent were in postgraduate year (PGY) 1, 30% in PGY 2, 25% in PGY 3, and 10% in PGY 4 or PGY 5. Sixty-five percent were in categorical or combined internal medicine (internal medicine/pediatrics and emergency medicine/internal medicine/pediatrics).
Residents appeared more likely to write a prescription for someone they knew well. For example, 62% of residents reported that they would likely prescribe a nonsteroidal anti-inflammatory drug for a neighbor with a flare-up of gout, but only 15% of residents were likely to prescribe an nonsteroidal anti-inflammatory drug for a recent acquaintance with acute low back pain. Similarly, residents reported that they were more likely to write an antibiotic prescription for a relative (sibling with acute sinusitis, 95%, or their own child with acute otitis media, 77%) than a nonrelative (nurse with a urinary tract infection, 32%). They also appeared more likely to write prescriptions for fellow residents. Sixty-five percent of residents reported that they would likely write a prescription for acetaminophen with codeine for a fellow resident experiencing pain from a fractured finger, while 40% reported that they would write the same medication for a family friend having pain from a fractured toe. The year of training, type of residency, and a history of having received a prescription as a nonpatient was unrelated to residents’ prescription-writing inclinations.

Thirteen percent of residents stated that they were aware of ethical guidelines concerning prescription writing for nonpatients. Only 4% knew of any federal or state laws concerning the issue. None of the residents who stated they were aware of ethical guidelines or federal and state statutes were able to describe them.

**COMMENT**

Our study confirms that at least some residents have written prescriptions for nonpatients, including fellow residents. In fact, 85% of our respondents reported having written prescriptions for nonpatients. Our sample size is small and limited to community-based internal medicine and family practice residents in a single hospital. Although the results may not be generalizable to all residents, our study raises concern that the practice may be widespread.

Since ours is the first study to observe residents’ prescription writing for a range of drugs, direct comparisons with the 2 previous studies examining resident prescription writing for nonpatients cannot be made. The study by Clark et al focussed on psychoactive drug prescribing, although they also included several selected classes of nonpsychoactive drugs (antibiotics, antihistamines, nonsteroidal anti-inflammatory drugs) for comparison. While a significant number of prescriptions were written for nonpsychoactive drugs in that study, the reported results do not allow a determination of

**Table.** Hypothetical Scenarios for Likelihood of a Resident Writing a Prescription

<table>
<thead>
<tr>
<th>Relationship to Resident</th>
<th>Condition</th>
<th>Medication Requested</th>
<th>Comment</th>
<th>Residents “Very Likely” or “Likely” to Write a Prescription, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sibling</td>
<td>Acute sinusitis</td>
<td>Antibiotic (type not specified)</td>
<td></td>
<td>95</td>
</tr>
<tr>
<td>Child</td>
<td>Otitis media</td>
<td>Antibiotic (type not specified)</td>
<td></td>
<td>77</td>
</tr>
<tr>
<td>Clinic secretary</td>
<td>Allergic rhinitis</td>
<td>Loratadine</td>
<td>Has primary care physician</td>
<td>77</td>
</tr>
<tr>
<td>Fellow resident</td>
<td>Fractured finger</td>
<td>Tylenol (acetaminophen) with codeine</td>
<td></td>
<td>65</td>
</tr>
<tr>
<td>Self</td>
<td>Allergic rhinitis</td>
<td>Cetirizine</td>
<td></td>
<td>63</td>
</tr>
<tr>
<td>Neighbor</td>
<td>Flare-up of gout</td>
<td>Indomethacin</td>
<td></td>
<td>62</td>
</tr>
<tr>
<td>Family friend</td>
<td>Fractured toe</td>
<td>Tylenol (acetaminophen) with codeine</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Hospital volunteer</td>
<td>Allergic rhinitis</td>
<td>Beclomethasone nasal spray</td>
<td>Does not have primary care physician</td>
<td>39</td>
</tr>
<tr>
<td>Nurse</td>
<td>Urinary tract infection</td>
<td>Trimethoprim/sulfamethoxazole</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Recent acquaintance</td>
<td>Acute low back pain</td>
<td>Diclofenac</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Hospital clerk</td>
<td>Jet lag</td>
<td>Temazepam</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>College student</td>
<td>Anxiety</td>
<td>Alprazolam</td>
<td>History suggests drug and alcohol abuse</td>
<td>1</td>
</tr>
</tbody>
</table>

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the percentage of residents who wrote prescriptions for these agents. The study by Christie et al10 examined prescription drug use among resident physicians. In that study, only 6% of residents had used prescriptions written by a fellow resident, in contrast with our results, in which 47% of residents reported receiving a prescription from a fellow resident. This difference may in part be explained by the fact that the residents in our institution do not have access to medication samples. Twenty-five percent of all medications in the study by Christie et al were obtained from a sample closet. All of our residents’ medications, however, had to be obtained by a written prescription, and the residents may have thought it preferable to have someone else write the prescription rather than writing it for themselves.

Perhaps it is not surprising that residents appeared more likely to write prescriptions for individuals with whom they had a strong relationship. This finding may be due to residents’ perceptions of being helpful toward a friend or family member. There may also be an assessment by the resident of their legal liability or of the abuse potential of the recipient. Residents seemed more likely to write a prescription for a narcotic analgesic for a fellow resident than for a close relative. Although our study did not identify the reason for this difference, one could speculate that there is peer pressure and the false belief that fellow residents are less likely to abuse prescription drugs than nonphysicians.5,6

There are numerous ethical and medicolegal reasons why prescribing for nonpatients should be done with circumspection.7,8 The informal nature of the interaction between physician and nonpatient creates opportunities for mistakes and errors in judgment. Clinical evaluations are usually cursory and important information may be missed. The physician may either be too close or too uninvolved with the individual to elicit a thorough history and to perform an adequate physical examination. Objectivity may be affected when the individual is a family member, friend, or colleague. Involvement in a medical issue of family or friends of the resident may cause or intensify familial or interpersonal conflicts.

For lack of a better term, we used the term nonpatient to identify individuals seeking care from someone who is not their usual physician. The word nonpatient, however, does not, in ethical and legal terms, imply lack of a physician-patient relationship. By legal standards, once a physician commences treatment (eg, writes a prescription), a patient-physician relationship is established. By definition, the relationship is contractual and the physician incurs liability for the interaction and its consequences.9

Surprisingly few ethical guidelines address prescription writing for nonpatients. The American Medical Association (AMA) Code of Medical Ethics10 addresses only the issues of self-treatment and treatment of family members. It states that “physicians generally should not treat themselves or members of their immediate family.” It goes on to state that “while physicians should not serve as primary or regular care providers for immediate family members, there are situations in which routine care is acceptable for short-term, minor problems.” Thus, the hypothetical scenarios in which the resident’s child with acute otitis media or brother with acute sinusitis receives antibiotics would be allowed by the AMA Code of Medical Ethics. The AMA Council on Ethical and Judicial Affairs does not comment on the issue of caring for or writing prescriptions for other types of nonpatients.

Federal law in the area of prescription writing is limited to controlled substances. These laws require that the prescriber have a bona fide patient-physician relationship with any person for whom he or she prescribes controlled substances. This relationship includes maintenance of a written medical record. State laws, at a minimum, follow the federal statutes. A few states, such as Massachusetts, go a step further and address prescription writing of all drug classes. Its Board of Registration guideline states:

The taking of a medical history and conducting a physical examination are the minimum requirements before prescribing. Physicians who issue prescriptions at the request of colleagues or office workers without conducting an appropriate physical examination run the risk of Board sanctions. Accurate records of patient visits and examinations . . . are also required.11

Although most of the residents we surveyed were not aware of published guidelines and statutes, we believe most had a vague notion of the legal and ethical arguments against prescribing for nonpatients, as 74% reported that they had refused to write a prescription at some time. Similarly, the responses to the hypothetical scenarios reveal that residents would frequently refuse to write prescriptions.

We recognize several limitations of our study. First, we surveyed only family practice and internal medicine residents at a single institution. Second, when faced with actual situations, residents may act differently than their responses to the hypothetical scenarios suggest. However, studies have shown that when scenarios contain enough information, participants’ responses closely parallel their actual behaviors.12,13 Finally, our study relies on self-reported data and may not necessarily reflect the actual behaviors of the residents. However, if anything, we suspect that this would result in underreporting of resident prescription writing for nonpatients.

While our results may not apply to all residents, we have examined a group of community-based internal medicine and family practice residents who report unsupervised prescribing of medications for nonpatients and who had received prescriptions from fellow resident and attending physicians who were not their usual treating physicians. Our clinical vignettes have revealed factors that appear to influence residents’ prescription-writing practices and suggest that residents assess some potential risk and impropriety of prescribing medication for a nonpatient prior to making a decision about whether to carry out the
request. Few of the residents surveyed were aware of ethical guidelines or federal and states law on the subject. As such, a significant percentage of respondents reported they would write a prescription for a fellow resident for acetaminophen with codeine, a Schedule III controlled substance, in violation of federal law. Additional studies are needed to determine the pattern of resident prescribing for nonpatients. Finally, since residency training is a time when practice habits are established, residency training programs should include education on the ethical, legal, and liability implications of writing prescriptions for nonpatients.

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REFERENCES