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Utilizing academic detailing

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Utilizing academic detailing

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Studies suggest that pharmaceutical promotion influences physicians' prescribing behavior. An estimated $12 billion a year is spent on drug advertising and marketing. Pharmaceutical companies use a multifaceted approach to drug promotion, including hospital and office detailing by pharmaceutical representatives, direct-to-consumer advertising through TV and magazines, printed materials in journals, and drug samples.

State legislative remedies for managing the boundaries between pharmaceutical promotion and education have gained popularity nationwide. The *Journal of the American Medical Association* (JAMA) reported that state legislatures considered 30 bills related to pharmaceutical promotion in 2002-03. In June 2002, Vermont became the first state to require pharmaceutical companies to file annual reports disclosing gifts or payments to physicians exceeding $25 in value. Also, many residency programs and health maintenance organizations have policies that restrict pharmaceutical company access to their physicians and other healthcare providers.

Photo: Jim Shive

Evidence indicates that poor prescribing decisions can be improved in a variety of ways without legislation to restrict pharmaceutical representatives. A number of communication and behavior changes can be found that use the success of pharmaceutical manufacturers in influencing prescribing practices. Providing "detailing" to physicians is one such method.

Academic detailing

Detailing involves intensive one-on-one educational interactions with healthcare providers in their own setting—a hospital or an outpatient clinic. *Commercial detailing* by pharmaceutical representatives is often done by business and sales professionals who may be biased toward their company's products. *Academic detailing* (also referred to in the literature as university-based educational detailing, public interest detailing, and outreach visits) is usually performed by a clinical pharmacist trained to provide unbiased, scientific, evidence-based medicine. The topic of the intervention is directed toward specific clinical decisions to save states and health plans money by reducing unneces-

GOAL

To provide pharmacists and technicians with practical information on how to improve evidence-based medicine and enhance medication therapy management programs

CREDIT

This lesson provides two hours of CE credit and requires a passing grade of 70%.*

OBJECTIVES

Upon completion of this article, the pharmacist and technician should be able to:

- ✔**Define evidence-based medicine and its main use**
- ✔**Distinguish academic detailing from commercial detailing**
- ✔**Discuss techniques to improve their medication therapy management (MTM) program using academic detailing and evidence-based medicine**
- ✔**Define academic detailing and its techniques to increase effectiveness**
- ✔**Discuss the quality components of an MTM program**

*To receive credit you must score 70% or higher on the quiz and complete the evaluation. Upon successful completion, the University of Florida College of Pharmacy will mail Statements of Credit for written quizzes within 10 working days. Participants completing the program on-line may print a Statement of Credit after successfully completing the program.

sary spending on costly prescriptions as opposed to less expensive but equally effective generic medications. Also, academic detailing helps to ensure that patients are being prescribed the most effective drugs for certain conditions, whether the drug is the least or the most expensive. Techniques for academic detailing are provided in Table 1.

Evidence-based medicine

The term *evidence-based medicine* (EBM) was introduced in 1992 by Guyett et al. in *JAMA.* It is defined as "the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients." EBM uses scientific evidence that is rigorously obtained. This contrasts to anecdotal experience, which can be biased, since even the most knowledgeable physician can be influenced in the decision-making process by recent experiences with patients, encounters with pharmaceutical sales representatives, drug samples, and patient requests in response to direct-to-consumer advertising. EBM attempts to overcome bias by making physicians aware of the results of large, controlled, and objective clinical studies to increase their confidence in developing individual treatment strategies.

EBM is becoming the foundation for medical practice. Previously, physicians drew on their own clinical experience, reflected on their knowledge of pathophysiology, researched the literature, or referred cases to local experts in the field. EBM places more emphasis on the result of large clinical trials than on experience for making decisions. However, it still recognizes the vital function of hands-on experience and the development of diagnostic instincts to produce competent physicians. Thus, this new paradigm integrates the best available external evidence with individual expertise acquired throughout medical training and practice.

EBM requires physicians to perform frequent and efficient literature searches and use established rules of evidence for evaluating clinical literature. Thus, the main use of EBM is in the development of evidence-based treatment guidelines for various disease states and conditions to assist in the choice of appropriate treatment modalities. Besides the main document, which is usually quite extensive, derivative products are also being developed: summaries, pocket versions, and personal digital assis-

tant (PDA) downloadable versions of the guidelines. Despite all of these tools and the evidence that guidelines improve outcomes, implementing guidelines has been a challenge. Many physicians ignore recommendations from professional organizations for the care of their patients and rely instead on their own impressions. This has been termed *impressionist medicine* as opposed to *evidence-based medicine*. Academic detailing by a pharmacist can effectively change prescribing habits to coincide with guidelines.

Investigating baseline knowledge and motivations of current prescribing patterns is one technique of academic detailing. It is crucial that the detailer have extensive knowledge of the guidelines to be able to discuss with physicians both treatment strategies and current prescribing habits. The guidelines help define clear objectives and establish credibility through a respected organizational identity, referencing authoritative and unbiased sources of information on both sides of controversial issues.

This said, guidelines still have their limitations, relating to the nature of the clinical randomized trials that were used as the basis of the recommendations for treatment. For example, certain subgroups—women, elderly patients, patients with renal failure, and particular ethnic groups—are often underrepresented or excluded in clinical randomized trials. Thus, it is crucial that the academic detailer be aware of the exceptions to the guidelines.

Table 1

Techniques of academic detailing

1. Conducting interviews to investigate baseline knowledge and motivations of current prescribing patterns
2. Focusing programs on several categories of physicians as well as on their opinion leaders
3. Defining clear educational and behavioral objectives
4. Establishing credibility through a respected organizational identity, referencing authoritative and unbiased sources of information, and presenting both sides of controversial issues
5. Stimulating active physical participation in education interactions
6. Using concise graphic educational materials
7. Highlighting and repeating the essential messages
8. Providing positive reinforcement of improved practices in follow-up visits

Medication Therapy Management

The collaborative role of pharmacists in implementing evidence-based treatment strategies is expanding with the implementation of the Medicare Modernization Act (MMA) of 2003. MMA gave pharmacists the opportunity to improve the quality of medication use for over 41 million seniors and Medicare beneficiaries with disabilities by designing and implementing a Medicare Medication Therapy Management (MTM) program. In July 2004, a consensus statement by 11 national pharmacy organizations defined MTM as a "distinct service or group of services that optimizes therapeutic outcomes and goes above and beyond the minimum level of counseling required by the Omnibus Budget Reconciliation Act of 1990 [OBRA '90]." The consensus group identified the following elements as quality components of MTM programs.

1. Patient identification and recruitment. There should be a process to enroll the pool of patients at risk for adverse events and those likely to suffer poor outcomes. Having pharmacists visit physicians in their own setting to provide detailing on guidelines provides a modality to identify and recruit MTM patients who are relevant to the treatment guideline being discussed.

2. Services to meet the needs of the individual patients. A program that provides coverage for MTM programs should include structures supporting the establishment and maintenance of the patient/pharmacist/prescriber relationship. Studies suggest that coordinated care between physicians and pharmacists can improve patient care outcomes. Over the past few years, pharmacists have begun entering into collaborative practice agreements (CPAs) to integrate their services with

Table 2

Some academic detailing topics

NSAIDs and COX-2 inhibitors

Do older NSAIDs carry the same cardiac risk as COX-2 inhibitors?

Upper G.I. symptoms

What is the relative efficacy of H_2 blockers versus proton pump inhibitors for specific clinical syndromes?

Antiplatelet therapy

What is the recommended duration of treatment after different thromboembolic events?

Lipid-lowering therapy

Who requires treatment?

Source: **www.Rxfacts.org**

those of a physician. Over 40 states have a statute or regulation regarding collaborative drug therapy management; however, a limited number of pharmacists are actually engaged in these collaborations. Before pharmacists can attain the level in which a CPA is possible, they must form successful working relationships with physicians. Academic detailing provides an avenue for pharmacists to establish a physician/pharmacist relationship with bilateral communication and mutual trust and respect.

3. Services tailored for setting and cultural differences. Programs should use methods appropriate to meet the needs of the targeted patient population. Academic detailing discussions can identify barriers to guideline adherence in certain patient demographics and health conditions. Such elements include the patient's residence, cultural diversity, health literacy, and language.

4. Coordination of care. An emphasis on coordination of care, rather than perpetuation of fragmented care, can improve patient outcomes. Establishing an academic detailing program that allows pharmacists to review patient profiles with the physician could potentially maximize the productivity of MTM providers by giving positive reinforcement of improved practices in follow-up visits.

5. Appropriate documentation and measurement. MTM programs will need to identify and perform a variety of measurements and document program results in order to determine overall program effectiveness and achievements. Visits with physicians should include a discussion on the desired treatment outcomes and results achieved. Prescribing patterns should also be tracked when available. Hard-dollar cost savings can be calculated based upon changes in physician prescribing habits.

6. Quality assurance. Given the concerns about the quality of health care, MTM programs need to address the issue of quality assurance. Application of evidence-based medicine, as appropriate, is a useful tool to ensure that program goals are met.

7. Communications by MTM program. Effective communications with plan members and providers are integral to the success of the MTM program. Academic detailing has been shown to be an effective method of communication to influence providers' prescribing practices. For example, a program was established in five Veterans Affairs (VA) medical facilities to improve physician awareness of important prescribing guidelines relating to hypertension. The program included lectures, educational materials, provider profiling to determine current prescribing habits, and academic detailing. The prescribing patterns were determined over two six-month periods. The researchers concluded that prescribing patterns more closely followed national guidelines after academic detailing.

8. Practitioners who can coordinate and provide MTM. The list of potential providers who can offer MTM may include pharmacists employed by a pharmacy, health plan, pharmacy benefit manager (PBM), hospital, other healthcare entity, or independent provider of care.

Continuing education and training of MTM providers on evidence-based medicine and treatment guidelines is necessary for success. The literature shows that academic detailing done on a one-to-one basis is more effective than group detailing in influencing adherence to treatment guidelines.

9. Adoption of standardized documentation, billing, and payment systems. MTM programs should include standardized documentation, billing, and

payment systems for MTM services. However, academic detailing services should be provided free of charge to practitioners as an adjunct to support the goals of the MTM program. Funding for academic detailing may be provided by state health departments, academic institutions, or grants from professional associations.

Effectiveness of academic detailing on guideline adherence

Translating guidelines into clinical practice can be challenging even when the guidelines are well established. Several reports have raised serious concerns about the prescribing of medications, questioning the value of programs to influence medical practices. These include the underuse of anticoagulation in elderly stroke patients with atrial fibrillation, the lack of lipid-lowering treatment in the primary or secondary prevention of coronary artery disease, the underuse of medications that have proven benefits on morbidity and mortality in patients with heart failure (HF), differences in prescribing patterns between generalists and specialists after myocardial infarction, and the lack of use of treatments to maintain renal function in hypertensive patients with diabetes mellitus.

Two studies will be presented to examine the effectiveness of academic detailing on improving adherence to the guidelines. The first study looks at practitioner compliance for the secondary prevention of acute myocardial infarction guidelines, and the second looks at practitioner compliance with national hypertensive medication guidelines.

Academic detailing to improve secondary prevention of myocardial infarction guidelines. The American Heart Association and the American College of Cardiology established a committee to revise the 1999 guidelines "for the management of patients with ST-elevation myocardial infarction." These updated treatment guidelines for the secondary prevention of acute myocardial infarction were published in 2004. The guidelines recommend the use of aspirin, beta-blockers, angiotensin-converting enzyme (ACE) inhibitors, and lipid-lowering agents after an acute myocardial infarction because of their significant morbidity and mortality benefits. Despite the evidence and the guidelines, these agents are not being optimally used.

A randomized, prospective study was performed to improve adherence to the secondary prevention guidelines in hospitalized patients with myocardial infarction by utilizing academic detailing and computer-generated reminders. The study was conducted at a 1,385-bed teaching hospital and involved four internal medicine physician teams (each comprising interns, residents, and attending physicians) to be assigned to intervention and control groups. Patients with elevated troponin I levels (>1.4 ng/mL) occurring within the first 24 hours of admission were referred to a clinical pharmacist. The clinical pharmacist then assessed the following:

- Was the patient eligible for intervention?
- Was the patient assigned to a control or an intervention medical team?
- Was the patient receiving the full complement of medications for secondary prevention of coronary heart disease and, if not, were there documented contraindications for nonprescribed medications?

The pharmacist then contacted physicians caring for intervention candidates on intervention teams with recommendations for secondary prevention. The interaction between the pharmacist and physicians either was in the form of face-to-face discussion or took place by telephone. Traditional academic detailing is performed face-to-face. During this interaction, the evidence base for the recommendations was discussed and a plan of action was determined. Pharmacists then followed up on a daily basis to confirm that the agreed-upon plan of action was implemented. The main outcome measured was the number of patients discharged on a regimen of aspirin, beta-blockers, ACE inhibitors, and statins. There were 216 discharge physicians involved in the study and 853 patients, 488 (57%) of whom were assigned to the control group and 365 (43%) of whom were assigned to the intervention group.

The intervention group showed a significantly greater proportion of eligible patients discharged on a regimen of ACE inhibitors and statin drugs. There was no significant difference with the aspirin or antiplatelet drugs; however, the use of aspirin or antiplatelet drugs was high in both intervention and control groups. A greater proportion of eligible patients in the intervention group were discharged on a regimen of beta-blockers, but this was not statistically significant ($p = 0.10$). When individual drug-class exclusions were considered, 343 (70.3%) of the 488

control patients and 305 (83.6%) of the 365 intervention patients were discharged on a full regimen of secondary prevention medications (p <0.001). The intervention had a significant impact on ACE inhibitors (p = 0.02) and statins (p = 0.02).

This study showed that a system of computerized screening of hospitalized patients to find potential candidates for secondary prevention medications for coronary heart disease, coupled with pharmacist-mediated academic detailing of physicians caring for these patients, significantly improved adherence to established guidelines for using these medications.

Academic detailing to implement antihypertensive guideline. Guidelines issued by the *Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure* (*JNC 7*) emphasize that aggressive blood pressure (BP) control is essential to reducing morbidity and mortality. Guidelines issued by the American Diabetes Association (ADA) and the World Health Organization-International Society of Hypertension (WHO-ISH) also emphasize the critical need for lowering BP levels. The literature was reviewed to evaluate strategies to improve BP control. Results from several outpatient programs and studies showed positive effects of pharmacist collaboration in ambulatory care settings compared with the previous inpatient study. The study results are as follows:

- A program that provided pharmacist academic detailing to physicians at five Veterans Affairs facilities resulted in significant increases in adherence to first-line hypertension (HTN) therapy.
- A study on the use of academic detailing to disseminate clinical practice guidelines evaluated the effectiveness of detailing by one retail pharmacist, two clinical pharmacists, and two pharmacists with research degrees. The detailers noted that the physicians were enthusiastic about the program and enjoyed the educational component as well as the opportunity to provide input on the guidelines.
- A study on the effectiveness of academic detailing with printed material, versus printed material only, on five geriatric topics showed that academic detailing plus printed materials improved knowledge retention among physicians. The primary endpoint of the study was knowledge retention, measured by a five-point questionnaire composed of items for the Geriatrics Knowledge Test. Academic detailing plus printed materials produced higher mean score changes from baseline (1.1 ± 1.3) than printed materials alone (0.0 ±1.1) (p = 0.053).

The results from these studies illustrate the expanding role for both retail pharmacists and clinical pharmacists in guideline implementation and adherence. All three studies point out the importance of printed materials as a tool to enhance academic detailing. The second study also recommends that community pharmacies collaborate with a university to save time and money in researching the guidelines and in developing printed materials. Many community pharmacies are connected to colleges of pharmacy (COPs) by offering to precept pharmacy students. This relationship between COPs and community pharmacies offers an opportunity to begin an academic detailing program within the community.

Community pharmacies with residents can encourage residents to implement a program or assist in maintaining a current program. Retail pharmacists serve a vital role in the implementation of a detailing program in the community, as many retail pharmacists have already established a relationship with prescribers over the years. Thus, pharmacists with existing physician relationships may be able to better communicate with physicians than pharmacists who are unknown in the community.

Strategies to increase effectiveness of academic detailing

Target practices with two or fewer full-time practitioners. A study conducted by Freemantle et al. evaluated the effectiveness of academic detailing by community pharmacists in 75 practices. The mean practice size was 2.75 partners and 5,615 patients. Overall, academic detailing was associated with significant improvement in prescribing practices with a 5.2% (1.7% - 8.7%) increase in the number of patients treated within the guideline recommendations. Smaller practices with two or fewer full-time practitioners had a greater response to academic detailing than did larger practices. Smaller practices improved their prescribing in accordance with the guidelines by 13.5% (6.0% - 20.9%), while larger practices improved by only 1.4%.

Provide individual visits less than 20 minutes in length. A clustered, ran-

domized control trial in a large health maintenance organization compared the effectiveness of individual versus group academic detailing to improve antihypertensive medications in primary care. The individual visit lasted an average of 20 minutes, while the group education visits lasted an average of 45 minutes, including chat and discussion. The results of the study showed that one-to-one education obtained an average prescribing behavior improvement of 6.5% ($p < 0.001$) in nine months after the intervention. In the education group, the average improvement was 2.4% (p< 0.05%) for the same period. Statistically significant differences were observed between the group intervention and the one-to-one groups.

Use continuing medical education only as an adjunct to academic detailing. In reviews of quality prescribing, Soumerai et al. concluded that group education may change physician attitudes and insights, but its effectiveness for improvement of prescribing methods is unclear. Thus, group education may be useful as an adjunct to individual detailing, but it should not be used as a replacement for one-to-one education.

Use concise graphic educational materials that highlight the essential messages. The results of the individual versus group study by Simon et al. also showed that the effectiveness of intervention increases with written material. The academic detailers were provided with duplicates of relevant articles and a brief printed graphic on official letterhead. The format of the reminder was glossy to resemble those from the pharmaceutical industry and designed to give the necessary information in a brief fashion for maximal impact.

In the study by Freeman et al., the academic detailers were provided with copies of the guidelines being targeted, summary sheets describing the main recommendations on a single sheet of paper, and key clinical papers. They were also provided with promotional materials specific to the guidelines.

Use clinical pharmacists to establish credibility. Both the study by Freeman et al. and that by Simon et al. used clinical pharmacists as the academic detailers. The clinical pharmacists in the Simon et al. study were recruited to the study on a locum basis and completed a three-day training and orientation course that focused on the content of the guidelines and social marketing techniques. Social marketing is defined as "the planning and implementation of programs designed to bring about social change using concepts from commercial marketing."

Pharmacists in the Freeman et al. study were not provided with a training course. They received only copies of the guidelines being targeted, summary sheets describing the main recommendations on a single sheet of paper, and key clinical papers. However, both studies had significant improvement in guideline adherence.

Cost-effectiveness of academic detailing

The importance of attaining these gains in guideline adherence can be measured by the reduced mortality and cost benefit that can be achieved in these programs. Using data from a randomized control trial of Evidence-based OutReach, an economic analysis explored the cost-effectiveness of academic detailing on the promotion of interventions to reduce mortality of major morbidity versus the cost savings of academic detailing on switching prescriptions from a more expensive to a less costly pharmaceutical. Data on 11,328 patients were collected from 162 general practitioners in 69 practices.

The main analysis showed that academic detailing is most cost-effective when the topic focuses on interventions to reduce mortality or major morbidity. The preconditions are that there is an evidence-based message of acceptable clinical and cost-effective care, and current care is suboptimal.

States are beginning to recognize both the health benefits and the cost-effectiveness of academic detailing and have teamed up with academic institutions to provide unbiased, scientific, and user-friendly information about new and old drugs. Pennsylvania and Vermont are two progressive states that are creating models for academic detailing.

Pennsylvania's Independent Drug Information Service (iDiS) is a $1 million academic detailing program supported by the Commonwealth of Pennsylvania Department of Aging and run by the Brigham & Women's Hospital in Boston. The *Boston Globe* reported in February 2007 that "over the past year, a team that has grown to 10 consultants has logged roughly 1,200 visits to about 500 Pennsylvania practitioners, mostly doctors." An independent group of physicians and researchers

on the faculty of Harvard Medical School provides the talking points and clinical materials to the detailers. Cost-savings data have not yet been compiled. However, the *Globe* reported that academic detailers have changed prescribing habits. For example, academic detailers decreased the unnecessary prescribing of Celebrex by highlighting less costly painkillers. Table 2 shows examples of the academic detailing topics created by iDiS.

Vermont's academic detailing program is provided at the University of Vermont College of Medicine Area Health Education Centers (AHEC) Program. AHEC is a statewide network of community and academic partners who work to promote rural health educational opportunities and address healthcare workforce challenges. A total of 49 AHEC programs and 211 affiliated AHEC centers are ongoing in 45 states and the District of Columbia. To see if your state has an AHEC program and to learn more about AHEC, log onto **www.bhpr.hrsa.gov/ahec.**

Creating an academic detailing program

The following Web sites contain useful resources on academic detailing programs and evidence-based medicine to help implement an academic detailing program. The evidence-based medicine sites are useful for researching potential topics and for developing printed materials. The academic detailing sites are useful models of successful academic detailing programs in community settings.

Evidence-based medicine

- **www.guidelines.gov** contains current, archived, and in- progress clinical practice guidelines from the National Guideline Clearinghouse (NGC) Web site. There are over 2,000 guidelines organized on this site by disease/condition, treatment/intervention, and other criteria.
- **www.bmjjournals.com** is a bimonthly co-publication of the British Medical Journal (BMJ) Publishing Group and the American College of Physicians-American Society of Internal Medicine that began in 1995. The journal scans over 100 journals and 50,000 articles a year to identify the most important and valid 120 research articles for publication. The top 10 most frequently read journal articles are freely available on-line.
- **www.nice.org.uk/** is the National Institute for Health and Clinical Excellence (NICE) Web site. NICE is an independent organization responsible for providing national guidance on promoting good health and preventing and treating ill health. NICE helps professionals implement the guidelines by providing tools such as cost templates, audit criteria, and slide sets.

Academic detailing programs

- **www.Rxfiles.ca/** is an academic detailing program in Saskatchewan, Can. It seeks to promote optimal drug therapy, providing drug information and education to physicians and other healthcare professionals. This Web site is an excellent resource for pharmacists interested in starting their own academic detailing program.
- **www.RxFacts.org** is the Web site for Pennsylvania's iDiS. All iDiS clinical materials are made freely available for noncommercial use at this Web site.

Conclusion: The expanding role for clinical pharmacists

Pharmacists have become links between physicians, patients, and the evolution of evidence-based medicine. Clinical pharmacists are knowledgeable on drug therapies and skilled at researching the literature to evaluate and apply evidence-based medicine. MTM allows for the collaborative pharmacist/physician relationships to improve patient management. Academic detailing is an effective strategy to enhance MTM programs, improve evidence-based medicine, and improve the patient/physician/pharmacist relationship. It expands the role of pharmacists, offering an opportunity for both retail and clinical pharmacists. Vermont and Pennsylvania are two states creating academic detailing paradigms for other states to model. Resources on evidence-based medicine and academic detailing are provided to help state health programs, community pharmacies, managed care programs, and institutions develop their own academic detailing program to improve cost-effective therapy.

Retail pharmacists are highly knowledgeable on brand/generic names, dosing, costs, and adverse events and are the gatekeepers between physicians and patients. Retail pharmacists already know physician prescribing habits in their community and know the personalities of the prescribers. Retail pharmacists looking for a

change already have the hardest part of academic detailing conquered—"establishing the physician-pharmacist relationship." Meanwhile, clinical pharmacists skilled in im- plementing various guidelines and performing EBM research can collaborate with retail pharmacists to provide them with essential guideline training and to develop the printed materials for the academic detailing. Retail and clinical pharmacists can work as a team to promote the physician-pharmacist relationship, implement medication guidelines, promote collaborative practice agreements, and enhance MTM services to ensure that patients have the most effective medications to meet their specific healthcare needs and financial concerns.

References are available upon request.

TEST QUESTIONS

Write your answers on the answer form appearing on page 63 (photocopies of the answer form are acceptable) or on a separate sheet of paper. Mark the most appropriate answer.

1. Which of the following is not an approach to drug promotion by pharmaceutical companies?
a. Detailing
b. Direct-to-consumer advertising
c. Drug samples
d. All of the above

2. The first state to require pharmaceutical companies to file annual reports disclosing gifts or payments to physicians over $25 in value was:
a. Vermont b. New York c. Pennsylvania d. Washington, D.C.

3. Which of the following best describes academic detailing?
a. Usually performed by a pharmaceutical sales representative
b. The providing of unbiased, evidence-based medicine
c. Group educational interactions
d. Direct-to-consumer advertising

4. Which of the following is not a technique of academic detailing?
a. Conducting interviews to investigate baseline knowledge and motivations of current prescribing patterns
b. Focusing programs on only one category of physicians
c. Establishing credibility through a respected organi-zation
d. Including key opinion leaders on detailing programs

5. Which of the following attempts to overcome bias by making physicians aware of the results of large, controlled, and objective clinical studies?
a. Commercial detailing
b. Academic detailing
c. Evidence-based medicine
d. Educational outreach

6. Which one of the following subsets of patients is often underrepresented or excluded in clinical randomized trials?
a. Women, elderly patients, patients with renal failure, and certain ethnic groups
b. Men, elderly patients, patients with renal failure, and certain ethnic groups
c. Women, elderly patients, patients with diabetes, and certain ethnic groups
d. Men, elderly patients, patients with diabetes, and certain ethnic groups

7. National pharmacy organizations defined which one of the following as a "service or group of services that optimizes therapeutic outcomes and goes above the minimum level of counseling."
a. OBRA '90 b. MMA c. MTM d. EBM

8. Which of the following statements regarding collaborative practice agreements is false?
a. Over half of the 50 states have a statute or regulation regarding collaborative drug therapy management.
b. Few pharmacies are engaged in collaborative practice agreements.
c. Collaborative practice agreements support the patient-pharmacist-prescriber relationship.
d. Coordinated care between physicians and pharmacists can improve patient care outcomes.

9. A component of MTM involves:
a. Appropriate documentation and measurement
b. Quality assurance
c. Services tailored for setting, cultural differences
d. All of the above

TEST QUESTIONS

10. The most effective method of academic detailing involves:
a. Group detailing with educational handouts
b. Group detailing only
c. Individual detailing with educational handouts
d. Individual detailing only

11. A program that provided pharmacist academic detailing to physicians at five Veterans Affairs facilities resulted in significant adherence to:
a. First-line hypertension therapy
b. The use of anticoagulation in elderly stroke patients with atrial fibrillation
c. The use of lipid-lowering treatment in the primary or secondary prevention of coronary artery disease
d. Treatments to maintain renal function in hypertensive patients with diabetes mellitus

12. Academic detailers should target practices with:
a. Two or fewer full-time practitioners
b. Two to five full-time practitioners
c. Six to 10 full-time practitioners
d. More than 10 full-time practitioners

13. Individual academic detailing visits should last an average of:
a. Five minutes
b. 20 minutes
c. 45 minutes
d. 60 minutes

14. According to the EBOR study, the most cost-effective academic detailing intervention involves:
a. Switching a prescription from a more expensive pharmaceutical to a less costly one
b. Reduction of morbidity and mortality based on evidence-based medicine
c. Reduction of morbidity and mortality based on evidence-based medicine when current care is suboptimal
d. Switching prescriptions to generics when applicable

15. Which of the following is a statewide network of community and academic partners who work to promote rural health and educational opportunities and address healthcare workforce challenges?
a. iDiS
b. NICE
c. EBOR
d. AHEC

16. Two progressive states discussed in this article that are providing models of academic detailing are:
a. Vermont and Pennsylvania
b. Virginia and Pennsylvania
c. Vermont and Oregon
d. Virginia and Oregon

17. Which of the following Web sites is a bimonthly publication that scans over 100 journals and 50,000 articles a year?
a. www.guidelines.gov
b. www.bmjjournals.com
c. www.nice.org.uk
d. www.Rxfiles.ca

18. The Medicare Modernization Act was created in what year?
a. 1990
b. 2000
c. 2003
d. 2006

19. Treatment guidelines are established according to:
a. Formulary committees
b. EBM
c. iDiS
d. MTM

20. The term EBM was established in:
a. 1982
b. 1992
c. 2002
d. 2005

Evaluation of CE

Drug Topics is conducting an evaluation of this CE article. Please (check) box that best reflects your opinion of the evaluation questions. Please keep this evaluation attached to your answer form.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. The program objectives were met.				
2. The program content was useful and relevant.				
3. The program was educational and not promotional.				
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ANSWER FORM

Utilizing academic detailing

AUGUST 20, 2007 ACPE # 012-999-07-170-H04

Test questions on preceding pages

1. a. b. c. d.	**5.** a. b. c. d.	**9.** a. b. c. d.	**13.** a. b. c. d.	**17.** a. b. c. d.
2. a. b. c. d.	**6.** a. b. c. d.	**10.** a. b. c. d.	**14.** a. b. c. d.	**18.** a. b. c. d.
3. a. b. c. d.	**7.** a. b. c. d.	**11.** a. b. c. d.	**15.** a. b. c. d.	**19.** a. b. c. d.
4. a. b. c. d.	**8.** a. b. c. d.	**12.** a. b. c. d.	**16.** a. b. c. d.	**20.** a. b. c. d.

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As of Sept. 1, 2007, submit your check and form to this new address: University of Florida College of Pharmacy, P.O.Box 113195, Gainesville, FL 32611-3195

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ATTENTION FLORIDA PHARMACISTS: The State of Florida has changed to a new record maintenance system for all continuing education, using a private company, cebroker.com. The University of Florida is registered with the Florida Board of Pharmacy as a Provider, and will report continuing education records for all pharmacists who are registered in Florida. Please provide your license number _____