

# ASHP Guidelines on the Provision of Medication Information by Pharmacists

## Definition of Terms and Basic Concepts

The provision of medication information is among the fundamental professional responsibilities of pharmacists in health systems. The primary focus of this Guidelines document is to help pharmacists in various practice settings develop a systematic approach to providing medication information. Medication information may be patient specific, as an integral part of pharmaceutical care, or population based, to aid in making decisions and evaluating medication use for groups of patients (e.g., medication evaluation for formulary changes, medication-use evaluations). The goal of providing carefully evaluated, literature-supported evidence to justify specific medication-use practices should be to enhance the quality of patient care and improve patient outcomes. To be an effective provider of medication information, the pharmacist must be able to<sup>1</sup>

1. Perceive and evaluate the medication information needs of patients and families, health care professionals, and other personnel, and
2. Use a systematic approach to address medication information needs by effectively searching, retrieving, and evaluating the literature and appropriately communicating and applying the information to the patient care situation.

## Medication Information Activities

A variety of medication information activities may be provided, depending on the particular practice setting and need. The following activities, which are often performed in an organized health care setting, are enhanced by using a systematic approach to meeting medication information needs<sup>2-5</sup>:

1. Providing medication information to patients and families, health care professionals, and other personnel.
2. Establishing and maintaining a formulary based on scientific evidence of efficacy and safety, cost, and patient factors.
3. Developing and participating in efforts to prevent medication misadventuring, including adverse drug event and medication error reporting and analysis programs.
4. Developing methods of changing patient and provider behaviors to support optimal medication use.
5. Publishing newsletters to educate patients, families, and health care professionals on medication use.
6. Educating providers about medication-related policies and procedures.
7. Coordinating programs to support population-based medication practices (e.g., development of medication-use evaluation criteria and pharmacotherapeutic guidelines).
8. Coordinating investigational drug services.
9. Providing continuing-education services to the health care professional staff.
10. Educating pharmacy students and residents.

11. Applying health economic and outcome analysis.
12. Developing and maintaining an active research program.

An individual pharmacist may have full or partial responsibility for all or some of these activities. For example, preparing drug monographs for pharmacy and therapeutics committees was once considered almost exclusively the responsibility of the drug information center or drug information specialist. As pharmacy practice has evolved, the expertise and knowledge base of individual pharmacy practitioners have been integrated into this process. The pharmacist may prepare the monograph or, if a medication is adopted for use, may assist in designing the medication-use evaluation (MUE) criteria, collecting data, or educating health care professionals on appropriate use. Any of these activities may contribute to a larger medication policy management program coordinated by a medication information center or specialist. As pharmacists in various organized health care settings have become more involved in providing pharmaceutical care, their activities have become less distributive and more information based, requiring a higher level of competence by all pharmacists in meeting medication information needs.

## Systematic Method for Responding to Medication Information Needs

The provision of medication information can be initiated by the pharmacist or requested by other health care professionals, patients and their family members, or the general public. The process is similar, regardless of how a medication information question is generated (e.g., by the pharmacist or by another health professional) or the context in which the information will be used (e.g., in a newsletter or for solving a patient-specific problem). The pharmacist must not only accumulate and organize the literature but also objectively evaluate and apply the information from the literature to a particular patient or situation.<sup>6-8</sup> Consideration should be given to the ethical and legal aspects of responding to medication information requests.<sup>9,10</sup> A systematic method can be outlined as follows:

1. To probe for information and develop a response with the appropriate perspective, consider the education and professional or experiential background of the requester.
2. Identify needs by asking probing questions of the patient, family members, or health care professional or by examining the medical record to identify the true question. This helps in optimizing the search process and assessing the urgency for a response.
3. Classify requests as patient-specific or not and by type of question (e.g., product availability, adverse drug event, compatibility, compounding/formulation, dosage/administration, drug interaction, identification, pharmacokinetics, therapeutic use/efficacy, safety in pregnancy and nursing, toxicity and poisoning) to aid in assessing the situation and selecting resources.

4. Obtain more complete background information, including patient data, if applicable, to individualize the response to meet the patient's, family's, or health care professional's needs.
5. Perform a systematic search of the literature by making appropriate selections from the primary, secondary, and tertiary literature and other types of resources as necessary.
6. Evaluate, interpret, and combine information from the several sources. Other information needs should be anticipated as a result of the information provided.
7. Provide a response by written or oral consultation, or both, as needed by the requester and appropriate to the situation. The information, its urgency, and its purpose may influence the method of response.
8. Perform a follow-up assessment to determine the utility of the information provided and outcomes for the patient (patient-specific request) or changes in medication-use practices and behaviors.
9. Document the request, information sources, response, and follow-up as appropriate for the request and the practice setting.

### Resources

It is the responsibility of the pharmacist to ensure that up-to-date resources, including representative primary, secondary, and tertiary literature, are available to assist in answering a variety of types of medication information requests. Pharmacists should be familiar with not only the components of the literature (e.g., primary) but also the features of individual resources in each component; this makes searching more efficient so that time can be used optimally in analyzing, applying, and communicating the information. The drug information modules of the ASHP Clinical Skills Program<sup>6-8</sup> describe the strengths and weaknesses of the different literature components and list frequently used resources and the types of information included in each publication. The following should be considered in purchasing literature resources:

1. Attributes of the literature (e.g., frequency of update, qualifications and affiliations of authors, year of publication, type of information, organization of material, type of medium, and cost).
2. Practice setting of the pharmacist (e.g., type of facility and needs of individuals within the environment).
3. Literature currently available and readily accessible.
4. Funds allocated for literature purchases.

The volume and sophistication of medication information, as well as the demand for it, are increasing, and human memory has limitations. Consideration should be given to using computers as a tool in the decision-making process. There are several areas in which computers can be valuable in the provision of medication information.<sup>11</sup> Databases are available for information management, retrieval, and communication. Information management databases include software for MUE, documentation of questions and responses, and preparation of reports of adverse drug events. Information retrieval sources include bibliographic databases (e.g., International Pharmaceutical Abstracts, Iowa Drug Information Service, MEDLINE) and full-text databases (e.g., Drug Information Fulltext).<sup>12,13</sup> Textbooks (e.g., *AHFS Drug Information*) and

journals can also be accessed through computer technology. Some information is available through electronic bulletin boards (e.g., PharmNet) and the Internet.<sup>14-16</sup> Computerized medical records can also be a valuable tool in assessing either individual patient needs or population-based needs.

### Documentation and Quality Assessment

Individual practicing pharmacists should base their documentation of medication information requests and responses on the type and purpose of the request and the subsequent use of the documentation. For patient-specific medication information, requests and responses could be documented in the patient's medical record. Documentation may also be considered necessary for quality assessment and other performance improvement and management activities.

Documentation of medication information requests and responses should include, as appropriate for the purposes of the documentation, the following:

1. Date and time received.
2. Requester's name, address, method of contact (e.g., telephone or beeper number), and category (e.g., health care discipline, patient, public).
3. Person assessing medication information needs.
4. Method of delivery (e.g., telephone, personal visit, mail).
5. Classification of request.
6. Question asked.
7. Patient-specific information obtained.
8. Response provided.
9. References used.
10. Date and time answered.
11. Person responding to request.
12. Estimated time in preparation and for communication.
13. Materials sent to requesters.
14. Outcome measures suggested (e.g., impact on patient care, improvements in medication use, and requester satisfaction).

Responses to requests for medication information should be accurate, complete, and timely for maximal clinical usefulness and to establish credibility for pharmacist-provided information. Quality assessment of responses should be included in the medication information process; this could be selective for certain types of patient-specific requests, random by numbers of requests or for certain time periods, or on some other basis appropriate to meet the needs of the health system.

### Keeping Current

It is the responsibility of the pharmacist to keep abreast of advancements both in the tools that can be used to systematically address information requests and in the information itself regarding pharmacotherapeutic or other issues affecting the practice of pharmacy.

### References

1. Troutman WG. Consensus-derived objectives for drug information education. *Drug Inf J*. 1994; 28:791-6.
2. Rosenberg JM, Ruentes RJ, Starr CH, et al. Pharmacist-operated drug information centers in the United States. *Am J Health Syst-Pharm*. 1995; 52:991-6.

3. ASHP supplemental standard and learning objectives for residency training in drug information practice. In: Practice standards of ASHP 1994–95. Hicks WE, ed. Bethesda, MD: American Society of Hospital Pharmacists; 1994.
  4. American Society of Hospital Pharmacists. ASHP accreditation standard for residency in pharmacy practice (with an emphasis on pharmaceutical care). *Am J Hosp Pharm.* 1992; 49:146–53.
  5. American Society of Hospital Pharmacists. ASHP statement on the pharmacist's clinical role in organized health care settings. *Am J Hosp Pharm.* 1989; 46:2345–6.
  6. Galt KA. Clinical skills program drug information series, module 1. Analyzing and recording a drug information request. Bethesda, MD: American Society of Hospital Pharmacists; 1994.
  7. Smith GH, Norton LL, Ferrill MJ. Clinical skills program drug information series, module 2. Evaluating drug literature. Bethesda, MD: American Society of Health-System Pharmacists; 1995.
  8. Galt KA, Calis KA, Turcasso NM. Clinical skills program drug information series, module 3. Responding to a drug information request. Bethesda, MD: American Society of Health-System Pharmacists; 1995.
  9. Kelly WN, Krause EC, Krowinski WJ, et al. National survey of ethical issues presented to drug information centers. *Am J Hosp Pharm.* 1990; 47:2245–50.
  10. Arnold RM, Nissen JC, Campbell NA. Ethical issues in a drug information center. *Drug Intell Clin Pharm.* 1987; 21:1008–11.
  11. Dasta JF, Greer ML, Speedie SM. Computers in health care: overview and bibliography. *Ann Pharmacother.* 1992; 26:109–17.
  12. Hoffman T. The ninth annual medical hardware and software buyers' guide. *MD Comput.* 1992; 9: 359–500.
  13. Baker DE, Smith G, Abate MA. Selected topics in drug information access and practice: an update. *Ann Pharmacother.* 1994; 28:1389–94.
  14. Gora-Harper ML. Value of pharmacy-related bulletin board services as a drug information resource. *J Pharm Technol.* 1995; 11:95–8.
  15. Glowniak JV, Bushway MK. Computer networks as a medical resource. *JAMA.* 1994; 271:1934–9.
  16. McKinney WP, Barnas GP, Golub RM. The medical applications of the Internet: information resources for research, education and patient care. *J Gen Intern Med.* 1994; 9:627–34.
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