California State Board of Pharmacy
400 R Street, Suite 4070, Sacramento, CA 95814
Phone (916) 445-5014
Fax (916) 327-6308
www.pharmacy.ca.gov

STATE AND CONSUMER SERVICES AGENCY
DEPARTMENT OF CONSUMER AFFAIRS
ARNOLD SCHWARZENEGGER, GOVERNOR

Contact Person: Patricia Harris
(916) 445-5014

LICENSING COMMITTEE MEETING

September 21, 2005

Hilton Oakland Airport
One Hegenberger Road
Oakland, CA 94621

9:30 a.m. – 3:30 p.m.

This committee meeting is open to the public and is held in a barrier-free facility in accordance with the Americans with Disabilities Act. Any person with a disability who requires a disability-related modification or accommodation in order to participate in the public meeting may make a request for such modification or accommodation by contacting Candy Place at telephone number (916) 445-5014, at least 5 working days prior to the meeting. Opportunities are provided to the public to address the committee on each agenda item. Board members who are not on the committee may also attend and comment.

A.	Call to Order	**9:30 a.m.**
B.	Request from University Compounding Pharmacy to Require Licensure of all Pharmacies that Compound	
C.	Proposed Statutory Change to Issue a Temporary Pharmacy Permit For a Change of Ownership to Pharmacies that Compound Injectable Sterile Drug Products	
D.	Request for Board Recognition of the School of Pharmacy at Touro University	
E.	Consideration of Granting Continuing Education to Pharmacists for Completing the Pharmacist Assessment Mechanism (PSAM) Administered by the National Association of Boards of Pharmacy (NABP)	
F.	Request for Comments on the Definition of Pharmacist's Scope of Practice Consistent with Pharmacy Law for Disaster Response Teams	
G.	Request from Accreditation Council for Pharmacy Education (ACPE) for Comments by November 1, 2005 on the Draft PharmD Standards and Guidelines	
H.	Development of Proposal to Update the Definition of a Pharmacy, a Nonresident Pharmacy, Pharmacist Practice and Licensure of Out-of-State Pharmacists	**10:30 a.m.**
Lunch		**12:30 p.m.**
Adjournment		**3:30 p.m.**

Meeting materials will be on the board's Web site by September 14, 2005

AGENDA ITEM B

University Compounding Pharmacy

1875 3rd Avenue
San Diego, CA 92101
PH# 619-683-2005

RECEIVED BY CALIF. BOARD OF PHARMACY
2005 JUL 25 PM 12: 13

07/20/2005

Board of Pharmacy
400 R Street, Suite 4070
Sacramento, CA 95814,

Dear Patricia Harris, Executive Officer,

As a topic to discuss at a future board meeting I would like to bring up licensure for compounded non-sterile products be covered under one compounding license, along with sterile products, to be known as the "Prescription Drug Compounding License".

Now that the sterile compounding license has been in effect for over 2 years, I feel that it has raised the standard in quality-compounded products available to the public. As we all know, the reason why we instituted this license is to protect the public from poor quality compounded sterile products that can cause harm. Because of our vast experience in compounding prescription medications we feel that the non-sterile compounded products can also cause harm to the public. We feel that all compounds should be covered by the "Prescription Drug Compounding License" for the following reasons:

First, to protect the public. Capsules can do as much harm as injectables. Creams improperly used containing lidocaine can cause cardiac arrest. Oral inhalations, solutions and eye drops can be contaminated. Many other compounded non-sterile products can cause harm as an improperly made sterile product. By placing these under the one compounding license this will keep the public safer. We will help keep the unqualified pharmacist, that is not seriously interested in compounding, out of the compounding field.

Second, the FDA is stating that the Boards of Pharmacy in the USA is not doing enough to regulate compounding pharmacies. California Board is leading the way. By placing both compounding products for sterile and non-sterile drugs covered by ONE special license we will set a template for the rest of the USA Boards of Pharmacy and help satisfy the FDA.

Third, by just having this form of license to compound prescription drugs we will have created a brand **NEW SPECIALTY OF PHARMACY**. This new **COMPOUNDING SPECIALTY** will be similar to nuclear pharmacy, home health care pharmacy, hospital pharmacy and provide it with credibility so that the public will have confidence and access to products that cannot be made by manufacturers. New generations of pharmacists will have an opportunity to practice the art of compounding with the support of the Board of Pharmacy in this great new specialty that has always been the corner stone of pharmacy.

Lastly, California Board of Pharmacy will be leading the way to set an example for the other states to follow. As we all know compounded prescriptions is the reason why we have the profession of pharmacy and this licensure we will help keep that credibility in compounding with California leading the way.

If I can be of any help in this project, please let me know. I can be contacted at (858) 483-4715.

Sincerely,

Joe Grasela
Compounding Pharmacist

AGENDA ITEM C

State of California | Department of Consumer Affairs

Memorandum

To: Licensing Committee | Date: September 9, 2005

From: Patricia F. Harris
Executive Officer

Subject: **Temporary Pharmacy Permit for Pharmacies that Compound Injectable Sterile Drug Products**

A pharmacy that compounds injectable sterile drug products is required to have a specialized pharmacy permit in addition to being licensed as a pharmacy. Under current law, when a pharmacy changes ownership, the board has the authority to issue a temporary pharmacy permit during the transition from the previous owner to the new owner. However, this same provision was not included for the injectable sterile compounding pharmacies. This has caused some difficulties for pharmacies that can obtain a temporary pharmacy permit for their general pharmacy practice, but cannot obtain temporary permit for the compounding of sterile injectable sterile products. Thus, the pharmacy must cease this service until the change of ownership is completed.

Therefore, it is being recommended that the board sponsor an omnibus provision next year to allow for the issuance of a temporary pharmacy permit when a change of ownership occurs for pharmacies that compound injectable sterile drug products.

Article 7.5 – Injectable Sterile Drug Products

4127. The board shall adopt regulations establishing standards for compounding injectable sterile drug products in a pharmacy.

4127.1. (a) A pharmacy shall not compound injectable sterile drug products in this state unless the pharmacy has obtained a license from the board pursuant to this section. The license shall be renewed annually and is not transferable.
(b) A license to compound injectable sterile drug products may only be issued for a location that is licensed as a pharmacy. Furthermore, the license to compound injectable sterile drug products may only be issued to the owner of the pharmacy license at that location. A license to compound injectable sterile drug products may not be issued until the location is inspected by the board and found in compliance with this article and regulations adopted by the board.
(c) A license to compound injectable sterile drug products may not be renewed until the location has been inspected by the board and found to be in compliance with this article and regulations adopted by the board.
(d) Pharmacies operated by entities that are licensed by either the board or the State Department of Health Services and that have current accreditation from the Joint Commission on Accreditation of Healthcare Organizations, or other private accreditation agencies approved by the board, are exempt from the requirement to obtain a license pursuant to this section.
(e) The reconstitution of a sterile powder shall not require a license pursuant to this section if both of the following are met:
(1) The sterile powder was obtained from a manufacturer.
(2) The drug is reconstituted for administration to patients by a health care professional licensed to administer drugs by injection pursuant to this division.
(f) This section shall become effective on the earlier of July 1, 2003, or the effective date of regulations adopted by the board pursuant to Section 4127.
(g) The board may, at its discretion, issue a temporary license to compound injectable sterile drug products, when the ownership of a pharmacy that is licensed to compound injectable sterile drug products is transferred from one person to another, upon the conditions and for any periods of time as the board determines to be in the public interest. A temporary license fee shall be established by the board at an amount not to exceed the annual fee for renewal of a license to compound injectable sterile drug products. When needed to protect public safety, a temporary license may be issued for a period not to exceed 180 days, and may be issued subject to terms and conditions the board deems necessary. If the board determines a temporary license was issued by mistake or denies the application for a permanent license, the temporary license shall terminate upon either personal service of the notice of termination upon the licenseholder or service by certified mail, return receipt requested, at the licenseholder's address of record with the board, whichever comes first. Neither for purposes of retaining a temporary license nor for purposes of any disciplinary or license denial proceeding before the board shall the temporary licenseholder be deemed to have a vested property right or interest in the license.

AGENDA ITEM D

State of California | Department of Consumer Affairs

Memorandum

To: Licensing Committee

Date: September 12, 2005

From: Patricia F. Harris
Executive Officer

Subject: **Touro University – School of Pharmacy**

Touro University College of Pharmacy is requesting that the Board of Pharmacy recognize its school of pharmacy for purposes of approving intern applications for its 64 students in the Class of 2009.

Current regulation, 16 CCR § 1719, states that a "recognized school of pharmacy" means a school accredited, or granted candidate status, by the Accreditation Council for Pharmacy Education (ACPE). Touro University currently has pre-candidate statues.

Touro University
California

EDUCATING CARING PROFESSIONALS TO SERVE, TO LEAD, TO TEACH

1310 Johnson Lane . Mare Island, Vallejo, CA 94592 . (707) 638-5200 . Fax (707) 638-5255 . www.tu.edu

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2005 AUG 24 PM 2:57

August 22, 2005

Patricia Harris, Executive Officer
Board of Pharmacy
400 R Street, Suite 4070
Sacramento, CA 95814

RECEIVED BY CALIF. BOARD OF PHARMACY
2005 AUG 24 PM 2:57

Dear Ms. Harris:

Touro University College of Pharmacy requests that the Board of Pharmacy process the pharmacist intern applications of our 64 students in the Class of 2009 in time for curricular activities planned for late October 2005. We support this request with the following information.

Touro University College of Pharmacy opened its doors to students in August 2005. The College currently has pre-candidate status with the Accreditation Council for Pharmacy Education (ACPE). Touro will be reviewed by ACPE for advancement to candidate status during the 2005-2006 academic year. As you well know, accreditation is based on adherence to ACPE Standards. Our review, scheduled for Spring 2006, will be based upon the new standards that ACPE has been developing and reviewing with the help of the educational community and the profession and which will be voted upon in January 2006. At present, schools and colleges of pharmacy who will be reviewed are using the Draft Revision of ACPE Standards 2000 and Proposed Guidelines as their tools in preparation for ACPE review.

The ACPE Draft Standards specify 300 hours of Introductory Pharmacy Practice Experience or IPPE during the pre-rotational portion of the curriculum. For our program, this equates to 75 hours per semester during the first two years. Our clinical partners expect that students enrolled in IPPEs will be licensed pharmacist interns. Therefore, the licensure process is important in meeting ACPE guidelines for accreditation. This is the basis for our request that our students be licensed in time for IPPE activities in the Fall 2005 semester.

Dr. Debbie Sasaki-Hill, Associate Dean for Clinical Affairs (707.638.5906) or I (707.638.5221) look forward to answering any questions you might have and assisting in any way in moving this request forward. The completed applications of the Class of 2009 were sent under separate cover last week. We send our thanks in advance to you and your staff for your assistance in this matter.

Sincerely,

Katherine Knapp

Katherine K. Knapp, Dean

Note:

Authority cited: Sections 4005, 4075 and 4114, Business and Professions Code. Reference: Sections 4005, 4019, 4027, 4050, 4051, 4052, 4075, 4114, 4116, 4117 and 4342, Business and Professions Code.

Article 3. Pharmacist Candidates

§1719. Recognized Schools of Pharmacy.

As used in this division, "recognized school of pharmacy" means a school of pharmacy accredited, or granted candidate status, by the Accreditation Council for Pharmacy Education or otherwise recognized by the board.

Note:

Authority cited: Section 4005, Business and Professions Code. Reference: Sections 4200 of the Business and Professions Code.

§1720. Application for Pharmacist Examination and Licensure.

(a) An application for examination shall be submitted on the form provided by the board, and filed with the board at its office in Sacramento.
(b) The fee required by subdivision (d) of section 1749 of this Division shall be paid for each application for initial examination and for any application to retake the examination described in section 4200.2 of the Business and Professions Code. The fee is nonrefundable.
(c)Each applicant shall be solely responsible for applying to and complying with the requirements imposed by the administrators of the North American Pharmacist Licensure Examination and the Multi-State Pharmacy Jurisprudence Examination for California for the administration of those examinations.

Note:

Authority cited: Section 4005, Business and Professions Code. Reference: Sections 4200 and 4200.2, Business and Professions Code.

§1720.1. Graduates of Foreign Pharmacy Schools.

Graduates of foreign pharmacy schools who have been certified by the Foreign Pharmacy Graduate Equivalency Committee shall be deemed by the board to have satisfied the requirements of paragraphs (3) and (4) of Business and Professions Code Section 4200(a). Candidates who have been certified by the Foreign Pharmacy Graduate Equivalency Committee before January 1, 1998, must also provide the board with a score on the Test of Spoken English of least 50. For candidates who took the Test of Spoken English before June 30, 1995, a score of at least 220 must be achieved.

Note:

AGENDA ITEM E

State of California | Department of Consumer Affairs

Memorandum

To: Licensing Committee | Date: September 12, 2005

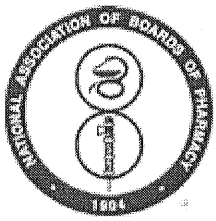
From: Patricia F. Harris
Executive Officer

Subject: **Pharmacist Self-Assessment Mechanism (PSAM)**

At the last Licensing Committee meeting, the committee discussed the announcement by the National Association of Boards of Pharmacy (NABP) regarding the development of the PSAM. The PSAM is an evaluation tool intended to assist pharmacists in obtaining objective, non-punitive feedback on their knowledge base and is available on NABP's web site.

The PSAM is applicable to general pharmacy practitioners in all practice settings. It consists of 100 multiple-choice questions and is divided into three sections of equal length. Each section can be completed in as little as one hour, but a maximum of three hours per section is allowed. Pharmacists may take all three sections in one setting, or complete one section at a time, but once a section is begun it must be completed in its entirety. All three sections must be completed within 30 days of when pharmacists complete the first section. The fee for PSAM is $75.

During the meeting in June, the Committee learned that the Idaho State Board of Pharmacy would grant 4 hours of Board-approved CE to pharmacists for completing the PSAM. More recently, Tennessee will grant 3 hours of CE. NABP did pursue accreditation of the PSAM by the Accreditation Council for Pharmacy Education (ACPE), but the accreditation was denied. It was also suggested by the California Pharmacists Association (CPhA) that the Pharmacy Foundation of California approve the PSAM as another CE option for California pharmacists. However, I don't know if CPhA has pursued this suggestion.



National Association of Boards of Pharmacy
1600 Feehanville Drive • Mount Prospect, IL 60056 Tel: 847/391-4406 Fax: 847/391-4502
e-mail
Carmen A. Catizone, MS, RPh, DPh
Executive Director/Secretary

NABP Launches PSAM, Non-Punitive, Knowledge Evaluation Tool for Pharmacists

5/2/05

NABP Launches PSAM, Non-Punitive, Knowledge Evaluation Tool for Pharmacists

The National Association of Boards of Pharmacy® (NABP®) is pleased to announce that the Pharmacist Self-Assessment Mechanism™ (PSAM™) is now available. The PSAM is an evaluation tool intended to assist pharmacists in obtaining objective, non-punitive feedback on their knowledge base and is available on the Association's Web site at www.nabp.net.

"Today's escalating complexities of health care delivery systems and the evolving role of the pharmacist as the patients' medication expert make it increasingly important for pharmacists to participate in a formal lifelong learning program," explains NABP President Donna M. Horn. "The PSAM will greatly aid pharmacists as they endeavor to better serve their patients because it provides objective feedback on their knowledge base – an outcome that is often difficult for pharmacists attempting to evaluate themselves."

The PSAM, which is applicable to general pharmacy practitioners in all practice settings, consists of 100 multiple choice questions and is divided into three sections of equal length. Each section can be completed in as little as one hour, but a maximum of three hours per section is allowed. Pharmacists may take all three sections in one sitting, or complete one section at a time, but once a section is begun it must be completed in its entirety. All three sections must be completed within 30 days of when pharmacists begin the first section. The fee for the PSAM is $75.

To benefit pharmacists and serve as a learning tool, the end of each section offers a feedback loop, which displays each question, the answer selected, the correct answer, a brief rationale, and a reference where more information relating to the topic may be obtained. Upon completion of the PSAM, pharmacists receive a Record of Completion indicating their name and date of completion.

As a non-punitive learning tool, the PSAM does not report scores to any person or group other than the pharmacist utilizing the PSAM. Once they have completed the mechanism, pharmacists will receive a confidential Achievement Report indicating the percentage of questions answered correctly in each of the five content areas as well as the overall percentage of questions answered correctly. The Achievement Report is separate from the Record of Completion and has no identifiers of the test taker.

The PSAM is one part of NABP's Continuing Professional Development (CPD) program, a cyclical process that includes five components: reflecting upon one's practice, conducting a learning needs assessment, developing a learning plan, implementing the learning plan, and evaluating the learning plan outcomes. As a component of CPD, the PSAM facilitates the general pharmacy practitioner's ability to conduct a needs assessment and develop a learning plan.

For more information about the PSAM, contact NABP's Customer Service Department at 847/391-4406 or via e-mail at custserv@nabp.net, or visit the Association's Web site at www.nabp.net.

If you have any questions or comments, please e-mail **custserv@nabp.net**.

TOP

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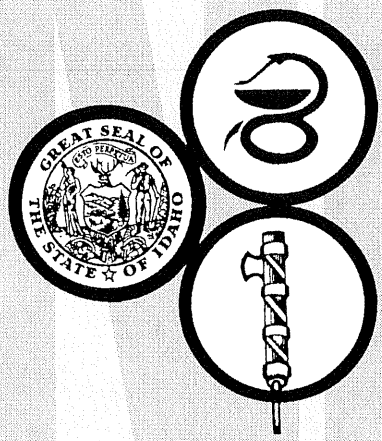
June 2005



Idaho Board of Pharmacy

Published to promote voluntary compliance of pharmacy and drug law.

3380 Americana Terr, Suite 320, Boise, ID 83706

Marilyn Silcock, PharmD

Marilyn is now completing her second and final five-year term as a member of the Idaho Board of Pharmacy. Marilyn has been a very active and dedicated Board member. She has served as chairman twice during her 10 years on the Board and never missed a meeting during that time. We have been very fortunate in having Board members like Marilyn give of their time and energy to serve the people of Idaho.

The Board consists of five members, four pharmacists and one public member. Although it is not required by law, we have been able to maintain Board members representing independent, chain, and health system pharmacists. Marilyn is the director of pharmacy at Portneuf Medical Center in Pocatello, ID, and represents health system pharmacists. The Idaho State Pharmacy Association submits the names of qualified candidates to Governor Dirk Kempthorne for his consideration in appointing new Board members.

Board-approved Continuing Education – New Program: PSAM

One of the critical issues in pharmacy is continuing professional development (CPD); that is, the means by which pharmacists maintain, improve, and broaden their knowledge and skills. The Idaho Legislature has found and declared that because of the continuous introduction of new therapeutic and diagnostic agents and the changing concepts in the delivery of health care services in the practice of pharmacy, it is essential that a pharmacist undertake a continuing education (CE) program in order to maintain his or her professional competency and improve his or her professional skills.

Since 1980 the Idaho Board of Pharmacy has required that no annual renewal license shall be issued to a pharmacist until such pharmacist shall have submitted proof to the Board that he or she has satisfactorily completed an accredited program of continuing professional education during the previous year to help assure continued competence to engage in the practice of pharmacy. Idaho's requirements recognize CE programs offered by CE providers approved by the Accreditation Council for Pharmacy Education (ACPE), Continuing Medical Education, and Board-approved programs.

The Idaho Board has approved the Pharmacist Self-Assessment Mechanism™ (PSAM™) offered by the National Association of Boards of Pharmacy® (NABP®) as a Board-approved program that will satisfy four (4) hours of Board-approved CE. The PSAM is an evaluation tool that will assist pharmacists in obtaining objective, non-punitive feedback on their individual knowledge of current practice therapies. The assessment tool is applicable to general pharmacy practice and all practitioners. It consists of 100 multiple-choice questions and is divided into three sections of equal length. Each section can be completed in less than one hour; however, a maximum of three hours per section is allowed. A pharmacist may take all three sections in one sitting, or complete one section at a time. However, once a section is begun it must be completed in its entirety. Once the PSAM is begun all sections must be completed in three weeks. The fee for the PSAM is $75.

Questions in the PSAM are based on patient profiles and simulate real-life practice situations and patient therapies. Because the PSAM is an assessment and learning tool, the pharmacist is provided with feedback on each question. The feedback information displays each question, the answer selected, the correct answer, a brief rationale for the correct answer, and a reference where more information about the answer or applicable treatment guidelines can be obtained.

Upon completion of the PSAM, pharmacists will receive a Record of Completion indicating their name and the date of completion. The PSAM will report the assessment evaluation score directly to the pharmacist in a separate report and will not report individual identified scores to the Board, NABP, or any other person, group, or entity unless so authorized by the pharmacist. The confidential Achievement Report forwarded directly to the pharmacist will indicate the percentage of questions answered correctly in each of the primary content areas as well as the overall percentage of questions answered correctly.

You will only need a copy of your Record of Completion to satisfy the four hours of Idaho Board-approved CE. The Board will not request the report of your assessment evaluation score.

The PSAM is one part of the much larger CPD program that NABP is fashioning with other state and national pharmacy organizations. The CPD program that is being advocated by NABP and other pharmacy associations includes five components: reflection upon one's practice, conducting a self-assessment, developing a learning plan, implementing the learning plan, and evaluating the outcomes of the learning plan. The PSAM facilitates components one and two of the CPD strategy. After completing the PSAM, pharmacists will be able to select continuing programs that address the results of the self-assessment and are beneficial to the pharmacist's particular practice setting. NABP is working with the Board and ACPE to ensure that quality CE programs are available in areas identified by the PSAM to assist pharmacists in developing individual CE program learning plans and completing meaningful CE programs.

For more information about the PSAM, visit www.nabp.net or contact NABP at 847/391-4406 or via e-mail at custserv@nabp.net.

AGENDA ITEM F

State of California | Department of Consumer Affairs

Memorandum

To: Licensing Committee

Date: September 9, 2005

From: Virginia Herold

Subject: Scope of Practice of Pharmacists for Emergency Preparedness & Response

Since the beginning of 2005, a group of individuals from various state and local agencies and some private associations have been meeting to design an advance registration system to prescreen and identify medical providers for quick deployment in response to disasters or bioterrorism events.

This group has been meeting under the authority of the state Emergency Medical Services Authority under a Health Resources and Service Administration Hospital Bioterrorism grant. This project is the "Emergency System for the Advanced Registration of Volunteer Health Professionals" (ESAR-VHP) project. Attached is a draft PowerPoint presentation that provides more background about this group.

I have been the board's representative at these monthly meetings.

One item needed is a scope of practice for pharmacists in emergency situations. Supervising Inspector Ratcliff and I have developed a preliminary scope of practice for pharmacists that we seek input on.

The final version should state in layperson's terms the duties pharmacists can perform under emergency conditions. For example, a draft version of the emergency scope of practice for dentists envisions the ability to suture outside the mouth or set bones in faces.

The draft in this packet lays out duties pharmacists routinely perform as much as anything. It will be revised to more in layperson's language, for easy comprehension by individuals who may not be familiar with the full meaning of such terms as "adverse drug reaction," "furnishing" or "therapeutic substitution."

Comments are invited.

Pharmacist Scope of Practice:

1. Prepare and dispense prescription medication and devices
2. Counsel patients and health care providers about medication and medication therapy
3. Know dosing and strengths of medication
4. Identify medication (by name and strength)
5. Recommend over-the-counter medication
6. Identify generically equivalent medication
7. Identify therapeutically equivalent medication
8. Identify adverse reactions from medication and the combined effects of multiple drugs
9. Perform drug therapy reviews and management of patients' drug therapy
10. Initiate, adjust or implement patient drug therapy
11. Interpret and verify orders for prescription medication
12. Ensure appropriate drug storage, documentation, labeling and record-keeping
13. Maintain accurate patient profiles and records
14. Supervise pharmacy technicians, pharmacist interns and ancillary personnel in the pharmacy
15. Compound specialty medication pursuant to prescription orders or for prescriber office use
16. Collaborate with health care providers regarding patient care
17. Administer or furnish drugs or vaccinations
18. Recommend appropriate drug products or therapy or refer patients for medical care

Recommended Scope of Practice in Emergency Response:

Pharmacists with virtually no additional training can:

1. Identify, organize and sort medication by drug class at mass distribution points or treatment centers
2. Provide first aid, CPR (if certified) and basic life support (if certified).
3. Take medical histories,
4. Take vital signs
5. Draw body fluids
6. Roll-out the national stockpile of drugs (training may be required).

The California ESAR-VHP

E Emergency
S System for
A Advance
R Registration of

V Volunteer
H Health
P Professionals

Federal Government Mandate

States must develop a system
that provides for
the advanced registration & credentialing
of clinicians
in order to augment a hospital
or other medical facility
and thereby meet
the increased patient/victim care needs
during a declared emergency

The idea behind the ESAR-VHP

is to register and credential the

historically large stream of healthcare

personnel

that wish to volunteer their expertise

during a disaster

PRIOR

Federal Mandate: States must determine how these healthcare personnel will be.....

- √ Housed
- √ Supervised
- √ and Managed throughout
  - Uthe
  - incident

Recruited
Processed
Credentialed
Integrated
Insured
Trained

First Wave Focus:

- Physicians
- Registered Nurses
- Nurse Practitioners
- Respiratory Care Practitioners
- Behavioral Health Providers
- Dentists
- Pharmacists
- Paramedics

CA ESAR-VHP Mission

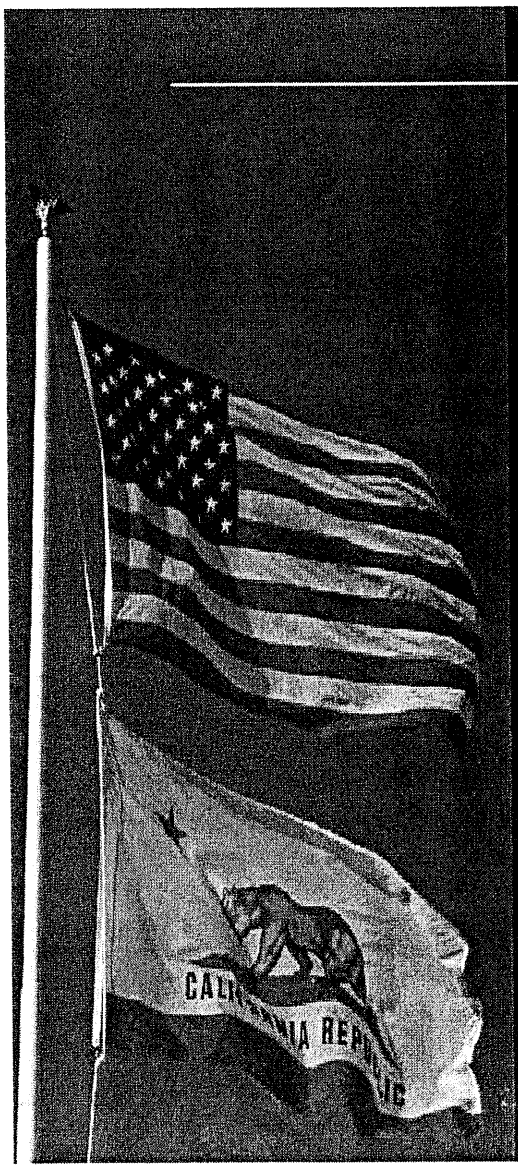
California ESAR-VHP is a statewide system,
which operates in coordination
with County Operational Areas*,
to recruit, register, credential, track, identify, deploy,
& maintain
currently licensed volunteer healthcare professionals
for response to emergencies, disasters
& terrorist incidents
in California & throughout the nation.

*Operational Area (OA)

In California, an Operational Area is defined as the governing body of each county plus all the political subdivisions located within that county.

Examples:

- Municipal & County Government
- Public Health Departments
- Emergency Management Agencies
- Hospital Districts
- Other Special Districts (e.g. utility, fire, law, police, etc.)



California ESAR-VHP

will be

state-based

and state-wide but

with national

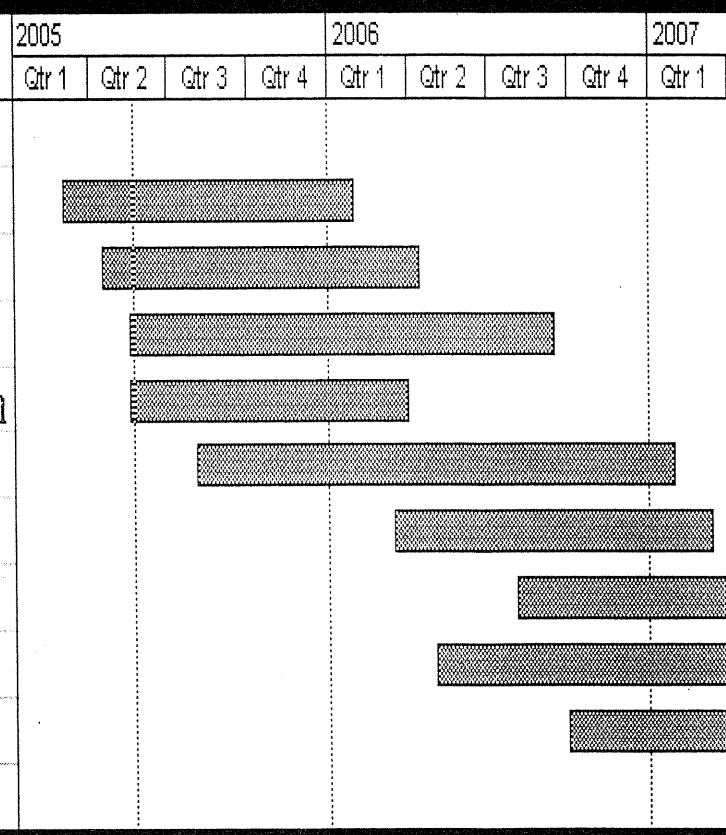
interoperability

CA ESAR-VHP Committee Representation

- State & County Agencies, Licensing Boards
- Professional Associations
- EMS Agencies & Associations
- Major Healthcare Providers & Associations
- Volunteer Organizations
- Professional Legal Consultants (soon)
- State Insurance Commission Rep (recruiting)
- Information Technology Experts (recruiting)
- Labor Union Reps (recruiting)

CA ESAR-VHP Major Activities

ID	Task Name
1	CA ESAR-VHP Major Activities
2	Stakeholder recruitment, issue ID
3	Identification and credentialing
4	Data type R&D
5	Legal/regulatory issue ID, resolution
6	System design, development, test
7	Policies and procedures
8	Recruitment/data import
9	Training
10	Retention
11	Transition to routine operations



Some of the Issues to be Addressed

- Volunteer Liability & Malpractice Protection
- System Sustainability Post-grant
- Regulatory Impediments
- Volunteer Job Release & Job Protections
- System Access Authority
- Data System / Security / HIPAA Compliance
- Local Emergency System Integration

AGENDA ITEM G

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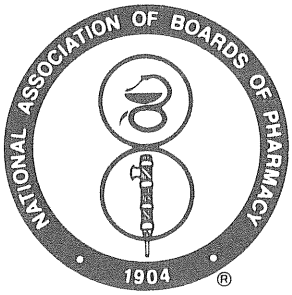
2005 JUL 25 PM 12:32



nabp

National Association of Boards of Pharmacy

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TO: EXECUTIVE OFFICERS – STATE BOARDS OF PHARMACY

FROM: Charisse Johnson, Professional Affairs Manager

DATE: July 22, 2005

RE: ACPE Requests Comments on Draft PharmD Standards and Guidelines by November 1, 2005

Attached is a memorandum concerning the draft of Accreditation Council for Pharmacy Education's (ACPE) PharmD Revised Standards and Guidelines, approved by the ACPE Board of Directors at its June 2005 meeting. The memorandum includes an invitation to comment on the Draft Standards and Guidelines, and to provide further input to ACPE in accordance with the procedures and time frame outlined. A copy of the Draft Standards and Guidelines may be downloaded from ACPE's website, www.acpe-accredit.org.

If you have any questions, please contact me via e-mail at cjohnson@nabp.net or by calling our Board-specific number 800/774-6227, or 847/391-4400.

Attachment

cc: NABP Executive Committee
Carmen A. Catizone, Executive Director/Secretary
Eleni Z. Anagnostiadis, Professional Affairs Director

ACCREDITATION COUNCIL FOR PHARMACY EDUCATION
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Jeffrey W. Wadelin, Ph.D.
Associate Executive Director and
Director, Professional Degree Program Accreditation

June 30, 2005

MEMORANDUM

TO: ACPE Stakeholders

FROM: Jeffrey W. Wadelin, Ph.D.
Associate Executive Director, and
Director, Professional Degree Program Accreditation

Michael J. Rouse, BPharm (Hons), MPS
Assistant Executive Director
International and Professional Affairs

SUBJECT: Draft of Revised PharmD Standards and Guidelines

As an important stakeholder in ACPE activities, your review and feedback is requested on the enclosed draft of the revised standards for PharmD programs and the accompanying guidelines that was approved by the ACPE Board of Directors for external distribution at its June 22-26, 2005 meeting. **Your written feedback will be considered if received by ACPE on or before November 1, 2005.** For your convenience, a copy of the draft standards and guidelines will be posted on our website, www.acpe-accredit.org.

In the early fall, a web-based survey also will be conducted by ACPE to allow anonymous commentary on the enclosed document. A draft considering all the comments that have been received and a proposed implementation timeline will be reviewed and voted on by the ACPE Board of Directors at the January 11-15, 2006 meeting.

Please note that the final document will include a Preamble and a Glossary. We have already received input regarding what should be included in these sections but their drafting will be the final step once work on the standards and guidelines has been completed.

As background information on the preparation of this draft, the process included:

- Staff preparation and multiple iterations to create a draft that tried to address comments received during the calls for input from ACPE stakeholders from March 2003 on, including standard-by-standard comments received via an anonymous survey sent to all accredited programs;

- Review and commentary on May 11, 2005, by a focus group of external expert reviewers (list of names and titles appended) that represented numerous points of view on the standards revision, including that of a self-study chair, curriculum committee chair, assessment committee chair, basic science faculty from various disciplines, pharmacy practice faculty and preceptors from various practice arenas (community, hospital, specialty practice), experiential director, student affairs director, college or school administrator, pharmacy residency preceptor, state board representative, participant in the AACP Center for Advancement of Pharmaceutical Education (CAPE) Educational Outcomes revision process, and a recent PharmD graduate. In addition, an ASHP staff member, who directs the pharmacy residency accreditation services, participated to help with the interface of new graduate versus resident competency expectations. A member of the AACP staff, who directed the revision of the CAPE Educational Outcomes and oversees the data services that interface with our strategic plan goal to establish more process and outcomes measures, also participated;
- Review and commentary on May 12, 2005, by Board members Brandt, Harris, Spratto and Zito, who had attended and heard the comments of the focus group;
- A further revision of the standards and guidelines by staff based on the feedback received on May 11 and 12, which was submitted to the ACPE Board for review and approval;
- A further revision of the standards and guidelines by staff based on the feedback received from the entire ACPE Board, which was approved for external distribution and is enclosed.

From the written and focus group feedback that was received, several principles emerged that guided the preparation of the enclosed draft:

- Standards will use "must" statements, while guidelines will use "must" or "should" statements – this will allow both quality assurance and continuous quality improvement to the highest level to be addressed;
- The guidelines need to provide additional detail, wherever possible;
- Comments received on the draft Standards themselves, which were distributed earlier this year, have been incorporated;
- More and better guidance should be provided on basic science instruction, experiential education (quantity and quality, preceptor and site selection, etc.), acceptance of the new CAPE Educational Outcomes, more emphasis on professionalism and scholarship, clarification of evaluation versus assessment, and other matters.

We believe the present draft addresses these principles and we look forward to your comments and feedback.

ENCL:
ACPE Focus Group on Draft Guidelines for Revised Standards
ACPE Draft Revised Standards and Guidelines June 2005 (separate .PDF document)

ACPE Focus Group on Draft Guidelines for Revised Standards

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Dawn G. Zarembski, PharmD
Consultant

DRAFT REVISION OF ACPE STANDARDS 2000 and PROPOSED GUIDELINES

(Approved by ACPE Board of Directors for distribution and comments, June, 2005.)

STANDARDS FOR MISSION, PLANNING AND EVALUATION

The purpose of the standards under this heading is to assure that the pharmacy college or school's professional degree program has a clear articulation of its mission and desired goals, undertakes a cooperative and ongoing strategic planning process to achieve the mission and goals, and has an evaluation plan, based on assessment measures, that allows for a determination of the degree to which the mission and desired goals have been achieved and serves as the basis for continuous quality improvement. The mission and goals must be related to the vision and needs of the profession of pharmacy to better serve society.

Standard No. 1. College or School Mission and Goals

The college or school of pharmacy *(hereinafter "college or school")* must have a published statement, formulated within an ethical context, of its mission and goals in the areas of education, research and other scholarly activities, service, and pharmacy practice. The statement must be compatible with the mission of the university.[1] These goals must include fundamental commitments of the college or school to: (1) the preparation of students with the competencies necessary for the present and future professional practice of pharmacy, (2) the advancement of the practice of pharmacy and its ability to serve society, and (3) the pursuit of research and other scholarly activities.

Guideline 1.1

The mission and goals of the college or school should differ from strategic goals and objectives, as the former describe the desired outcomes, while the latter are steps to achieve the desired outcomes.

Guideline 1.2

The college or school's vision for pharmacy practice, research and education should be broadly aligned with the pharmacy profession's vision for pharmacy practice, research and education. The college or school should foster innovation through basic and applied research and a commitment to participate in the development of new practice models.

[1] The term "university" includes independent colleges and schools.

Guideline 1.3
The college or school's mission statement and goals should address the educational philosophy of the professional degree program in preparing graduates with a thorough foundation in the sciences, to enter the profession and contribute positively to its evolution.

Guideline 1.4
The mission statement and goals should include a commitment to a culture and environment in the college or school that respects and:

- reflects contemporary pharmacy practice and the vision for its future;
- fosters collaboration and good morale among and between administration, faculty and students;
- assures a dynamic interplay between the college or school, the pharmacy and healthcare communities, and society in general;
- attends to the varied needs of learners, and prepares them for the continuum of education;
- provides, supports and/or is affiliated with post-graduate professional education and training of pharmacists, such as accredited-residencies, fellowships, and graduate programs, including combined degree options;
- supports continuing professional development of faculty, staff, alumni and other pharmacists;
- fosters innovation, professionalism, ethical behavior, leadership and scholarship;
- encourages diversity within faculty and students;
- attends to the needs of diverse stakeholders;
- values scientific advancement; and
- embraces quality assurance and continuous quality improvement.

Guideline 1.5*
For new program initiatives such as alternate pathways to degree completion, including geographically dispersed campuses and distance-learning activities, the college or school must ensure:

- the initiatives are consistent with the university's and college or school's missions and goals;
- the same commitment is demonstrated to all students, irrespective of pathway or geographic location; and
- an equitable allocation of resources.

Standard No. 2. Strategic Plan
The college or school must develop, implement and regularly revise a strategic plan to facilitate and continuously advance its mission and goals. The plan must be developed through an inclusive, broadly based process involving faculty, students, staff,

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* *Guidelines with an asterisk provide guidance related specifically, if relevant, to new program initiatives such as alternate entry-level pathways, including geographically dispersed campuses and distance-learning activities.*

administrators, alumni and other parties as needed, must have the support of the university administration, and must be disseminated in summary form to key stakeholders.

Guideline 2.1
The strategic plan should address short-term (e.g., 3 to 5 years) strategic goals and objectives that are key to the advancement of the college or school's mission and goals.

Guideline 2.2
Strategic planning should:

- be ongoing, with frequent and systematic broad-based reflection and revision to meet programmatic needs;
- consider use of external facilitators;
- ensure understanding of and commitment to the strategic plan by key stakeholders;
- consider necessary changes, based on examination of present and projected environmental, professional and programmatic factors;
- be aligned with the university's strategic plan;
- identify opportunities for interfaces with other health professionals;
- include a review, of the college or school's mission statement and goals;
- prioritize the strategic goals, objectives and actions;
- define measurable outcomes;
- establish achievable timelines;
- identify the resources (e.g., faculty, staff, technical, financial, physical) that need to be allocated;
- designate responsibilities; and
- establish mechanisms for ongoing monitoring and reporting of progress.

Guideline 2.3
Any substantive change (as defined by the ACPE *Substantive Change Policy*) contemplated by the college or school must be addressed through the college or school's strategic planning process. Planning must take into consideration all resources (including financial and human) required to implement the change and the impact of the change on the existing program. Consultation with ACPE must occur early in the planning process and prior to implementation of any such substantive change.

Guideline 2.4*
A substantive change that involves new program initiatives (such as alternate pathways to degree completion, including geographically dispersed campuses and distance-learning activities) should result from documented needs and be included in the strategic planning process, assuring adequate lead time for development.

Standard No. 3. Evaluation of Achievement of Mission and Goals
The college or school must establish and implement an evaluation plan that uses assessments of achievement of the mission and goals. The plan must measure the extent to which the desired outcomes of the professional degree program (including assessments

of student learning and evaluation of the effectiveness of the curriculum), research and other scholarly activities, service, and pharmacy practice programs are being achieved in accordance with the mission and goals. The college or school must use the analysis of process and outcome measures for continuous development and improvement of the professional degree program.

Guideline 3.1[2]

The evaluation plan must describe a continuous and systematic process of evaluation covering all components of the college or school and the accreditation standards. The plan must be evidence-based and embrace the principles and methodology of continuous quality improvement. As a component of the strategic planning process, the evaluation plan and the specific assessments should be reviewed for completeness, appropriateness, and effectiveness by internal and external stakeholders.

Guideline 3.2

The evaluation plan should describe the:

- desired outcomes of the professional degree program (including assessments of student learning and evaluation of the effectiveness of the curriculum), research and other scholarly activities, service, and pharmacy practice programs;
- multiple process and outcome assessments that will be measured and evaluated, and how often;
- individual(s) responsible for data collection, analysis and dissemination;
- parties that will be responsible to receive and be authorized to act on the findings;
- manner by which resultant changes (e.g., revisions in the curriculum or modifications of faculty and student policies and procedures) will be implemented, evaluated, documented and communicated;
- colleges or schools, in addition to all ACPE-accredited programs, that will be utilized for peer comparison, if any, and the basis for their selection; and
- faculty and staff resources needed for successful implementation.

Guideline 3.3

The assessments employed in the evaluation plan should:

- include defined formative and summative measures;
- involve the full range of relevant stakeholders (internal and external);
- permit anonymous input and provide for collective analyses of findings;
- be used to evaluate trends over time; and
- include, where available, standardized or common instruments and data, such as those available through the American Association of Colleges of Pharmacy (AACP) and the National Association of Boards of Pharmacy (NABP), to allow comparisons with other accredited professional degree programs and peer colleges and schools.

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[2] *Additional guidance relevant to the evaluation plan is provided under Standards 13, 14, 15 and 17.*

Guideline 3.4
The college or school should publish periodically the major findings and actions resulting from its evaluation plan and distribute them to key stakeholders.

Guideline 3.5*
The evaluation plan must include assessments that will allow comparison and establishment of comparability of alternative pathways to degree completion, including geographically dispersed campuses and distance learning activities.

STANDARDS FOR ORGANIZATION AND ADMINISTRATION

The purpose of the standards under this heading is to assure that the college or school's organization and support within the university structure, its relationships with other university and external practice and research entities, and its internal organization, leadership and governance are developed and functioning in a manner that assures quality outcomes for the college or school's mission and goals.

Standard No. 4. Institutional Accreditation

The institution housing the college or school, or the independent college or school, must have or, in the case of new programs, achieve full accreditation by a regional/institutional accreditation agency recognized by the U.S. Department of Education.

Guideline 4.1
The college or school must report to ACPE, as soon as possible, any issue identified in regional/institutional accreditation actions that may negatively impact the quality of the professional degree program.

Guideline 4.2
If not a component of or a regionally accredited institution, a college or school must achieve institutional accreditation from the appropriate regional accrediting body. Some regional accrediting bodies grant "pre-accreditation" as a first step to achieving full accreditation. In such circumstances, the attainment of pre-accreditation status would meet the requirements of this standard. Subsequently, in such cases, achievement of full accreditation status would be required in order to continue to meet the requirements of this standard.

Standard No. 5. College or School and University Relationship

The college or school must be an autonomous unit within the university structure, and must be led by a dean. To maintain and advance the professional degree program, the university president (and/or other university officials charged with final responsibility for the college or school) and the dean must collaborate to secure adequate financial, physical (teaching and research), faculty, staff, student, practice site, preceptor, library, technology and administrative resources to meet the ACPE accreditation standards.

Guideline 5.1
The college or school should participate in the governance of the university, within its policies and procedures.

Guideline 5.2
The college or school must have autonomy, within university policies and procedures, in the following areas:

- programmatic evaluation;
- definition and delivery of the curriculum;
- development of bylaws, policies and procedures;
- student admission and progression policies; and
- faculty and staff recruitment, development, evaluation, and retention.

Standard No. 6. College or School and Other Administrative Relationships
The college or school, supported by the university, must develop suitable academic, research and other scholarly activity, practice and service relationships, collaborations and partnerships, within and external to the university, to support and advance its mission and goals.

Guideline 6.1
The relationships, collaborations and partnerships should benefit the desired outcomes of the professional degree program, research and other scholarly activities, service, and pharmacy practice programs.

Guideline 6.2
The relationships, collaborations and partnerships should:

- promote integrated and synergistic inter-professional and inter-disciplinary activities;
- define the interface between the service and educational components;
- provide the necessary blend of educational and patient care activities in a variety of practice settings;
- help to meet community needs;
- foster post-graduate education, post-graduate accredited-residency and fellowship training, and combined degree options;
- assure that appropriate control and supervision are vested in the college or school;
- promote research advancement of the profession; and
- be developed and maintained with a spirit of mutual service, trust, and reciprocity.

Guideline 6.3
Formal agreements, signed by authorized representatives of the respective parties, must be developed that describe the nature and intent of the relationship, collaboration or partnership, delineate the financial arrangements (if any) and provide for periodic collaborative review by the respective parties.

Standard No. 7. College or School Organization and Governance

The college or school must be organized and staffed to facilitate the accomplishment of the mission and goals. The college or school administration must have defined lines of authority and responsibility, must foster disciplinary development and collegiality, and allocate appropriate resources. The college or school must have published governance documents, such as bylaws and policies and procedures, which have been generated by faculty consensus under the leadership of the dean in accordance with university regulations.

Guideline 7.1

The college or school's administrative leaders should function as a team and play a key role in accomplishing the mission and goals of the college or school. Staff support should be provided for the administrative leaders to assure their effectiveness. Seminars, programs, mentors and other activities designed to ensure the growth and development of the administrative capabilities of both the leaders and the team should be provided. The administrative leaders' responsibilities should include:

- advancing the respective pharmacy disciplines, as required by the curriculum and as organized within the college or school;
- mentoring, developing and evaluating the faculty;
- assuring effective delivery of the respective course offerings;
- managing operations and budgetary affairs;
- fostering research and other scholarly activities; and
- setting and evaluating goals and objectives consistent with the college or school's mission and goals and as a part of the college or school's systematic planning and evaluation.

Guideline 7.2

Where the college or school organizes its faculty into sub-units, such as departments or divisions, the administrative leaders (e.g., department chairs or heads, associate or assistant deans) must have clearly defined responsibilities and the authority to discharge their responsibilities. Sub-unit goals and objectives must be established which align with the mission and goals of the college or school. The effectiveness of each organizational unit must be evaluated on the basis of their goals and objectives, and their contribution to the professional program.

Guideline 7.3

Faculty and staff should be afforded the opportunity and encouraged to participate in the system of governance of the college or school.

Guideline 7.4

Faculty meetings and committees must be part of the system of governance of the college or school. Committees should be established to address key components of the mission and goals. Where appropriate, committees should include staff, students, preceptors, alumni, and pharmacy practitioners. Minutes of faculty meetings and committee actions should be maintained and communicated to appropriate parties.

Guideline 7.5
The college or school should maintain a system of communication among all stakeholders.

Guideline 7.6
Bylaws, polices and procedures should address organizational and administrative issues including:

- governance of the college or school;
- professional responsibilities;
- academic freedom;
- research and scholarship;
- intellectual property;
- employment contracts and conditions of service, faculty and staff recruitment, promotion and tenure (if applicable);
- grievances;
- membership responsibilities and voting rights of the faculty;
- officers of the faculty;
- faculty meetings and committees;
- policy development and adoption; and
- suspension of rules and amendment of bylaws and timeframe for periodic review of the bylaws, policies and procedures.

Guideline 7.7*
Alternate program pathways must be integrated into the college or school's regular administrative structures, policies and procedures (including planning, oversight and evaluation) and must be supervised by an administrator who is part of the college or school. Workflow and communication between administration, faculty, staff, and students should not be hindered by distance or location. The college or school must retain ultimate responsibility for the academic quality and integrity of distance-learning activities and the achievement of expected and unexpected outcomes, regardless of any contractual arrangements, partnerships, or consortia for educational or technical services.

Guideline 7.8*
All programs, pathways and courses employing distance learning methods must have policies and procedures that should address potential systems failures whether such failures are technical, administrative or curricular. Contingency planning should include creating secure backups of critical applications and systems data, providing mechanisms for making up lost coursework and academic credit, securing alternate means for communication and information delivery, and creating exit strategies to protect students if part or all of a program loses viability after students have been enrolled.

Standard No. 8. Qualifications and Responsibilities of the Dean
The dean must be qualified to provide leadership in pharmacy education, research and other scholarly activities, service, and pharmacy practice. The dean must be the chief administrative and academic officer and have direct access to the university president and/or other university officials delegated with final responsibility for the college or

school. The dean must unite and inspire faculty and students toward achievement of the mission and goals. The dean is responsible to ensure that all accreditation requirements of the ACPE are met, including the timely submission of all reports and notices of planning for substantive changes.

Guideline 8.1

To provide leadership in accomplishing the mission and goals of the college or school, the qualifications and characteristics of a dean should include:

- a degree in pharmacy and/or a strong understanding of contemporary pharmacy and health care systems;
- a scholarly concern for the profession, generally, and the diverse aspects of pharmacy practice, in particular;
- appropriate prior leadership and managerial skills and experience in the academic (preferred) or health care sectors;
- strong communications skills;
- a commitment to systematic planning, assessment and continuous programmatic improvement;
- a commitment to teaching and student learning, including pedagogy;
- a commitment to the advancement of research and scholarship;
- the ability and willingness to provide assertive advocacy on behalf of:
    - the college or school to the university administration, and
    - the college or school and the profession of pharmacy in community, state and national health care initiatives; and
- a record of and willingness to continue active participation in the affairs of pharmacy's professional and scientific societies.

Guideline 8.2

The dean must be responsible for assuring:

- development, articulation, and implementation of the mission and goals;
- acceptance of the mission and goals by the stakeholders;
- development, implementation, evaluation and enhancement of the educational, research, service, and pharmacy practice programs;
- development and progress of the strategic plan and the evaluation plan;
- recruitment, development and retention of competent faculty and staff;
- initiation, implementation, and management of programs for the recruitment and admission of qualified students;
- establishment and implementation of standards for academic performance and progression;
- resource acquisition and mission-based allocation; and
- continuous enhancement of the visibility of the college or school on campus and to external stakeholders.

To accomplish these responsibilities, the dean must have the assistance and full support of the administrative leaders of the college or school's organizational units.

Guideline 8.3
In instances where the dean is assigned other substantial administrative responsibilities within the university, arrangements for additional administrative support to the office of the dean must be made to assure effective administration of the affairs of the college or school.

Guideline 8.4
The dean must ensure compliance with ACPE's accreditation standards and policies and procedures. In the event that remedial action is required to bring the college or school into compliance, the dean must take the necessary steps to ensure compliance in a timely and efficient manner. In this regard, the dean should seek advice and consultation from ACPE, as needed.

STANDARDS FOR CURRICULUM

The purpose of the standards under this heading is to assure that the college or school's curriculum provides a thorough foundation in the sciences and prepares graduates with the competencies needed to enter and contribute to the profession of pharmacy throughout their career. Desired curricular content, organization, sequencing and outcomes, the type and character of practice experiences needed, and the methods of promoting student learning and development of life long learning skills, as well as, the need to use assessments to measure and evaluate and improve student learning and effectiveness as part of the college or school's evaluation plan, are described. As requested by the Institute of Medicine for all health professionals, pharmacists must be educated to deliver patient-centered care as members of an inter-professional team, emphasizing evidence-based practice, quality improvement approaches, and informatics.

Standard No. 9. The Goal of the Curriculum

The college or school's professional degree program curriculum must prepare graduates for the present and future professional practice of pharmacy and the advancement of the profession by providing a thorough scientific and practice foundation that stresses integration and application.

Guideline 9.1
The goal of the curriculum must be to prepare graduates who possess the required knowledge, skills, and attitudes to satisfy the educational requirements for licensure as a pharmacist and to enter pharmacy practice and provide patient-centered care utilizing the competencies described in Standard 12. The curriculum also must meet relevant university standards.

Standard No. 10. Curricular Organization and Length

The college or school's curriculum must be organized with attention to sequencing expected outcomes, integration of appropriate content, and the selection of appropriate teaching and learning methods and assessments. All curricular pathways must demonstrate the achievement of the professional competencies.

The curriculum for the professional degree program must be a minimum of four academic years or the equivalent number of hours or credits. The curriculum must build towards and culminate with a minimum of one academic year of advanced pharmacy practice experiences.

Guideline 10.1
To maximize efficiency and effectiveness in achieving desired outcomes, the college or school should ensure curricular integration through coordinated instruction across organizational lines and faculty disciplines. Sequential instruction without proper communication and organization is not adequate integration.

Guideline 10.2
Colleges or schools must assess continually for undue stress on faculty, staff and students that leads to ineffective learning experiences.

Standard No. 11. Teaching and Learning Methods
The college or school must utilize appropriate teaching and learning methods, including laboratory and other practical exercises, to achieve stated outcome expectations of the professional competencies, to foster the development and maturation of critical thinking and problem solving skills, and to meet the diverse learning needs of students. The educational process must engage students as active, self-directed learners to become and remain competent pharmacists. The curriculum must enable students to transition from dependent to independent learners.

Guideline 11.1
Different teaching strategies and methods, appropriate to the subject matter and outcome competencies, should be utilized and integrated throughout the curriculum, and should be adapted, where necessary, for the diverse learning needs of students. From the earliest stages in the program, strategies should be adopted to encourage and assist students to assume responsibility for their own learning (including assessment of their learning needs, development of personal learning plans, and self-assessment of the acquisition of knowledge and skills, and achievement of desired competencies and outcomes).

Guideline 11.2
The development of critical thinking and problem solving skills should be supported through the application of computer and other instructional technologies, case studies, simulations, and guided group discussions.

Guideline 11.3*
The college or school must determine which content can be successfully taught at a distance prior to developing distance-learning programs, pathways or courses. Distance learning activities should only be used where appropriate to curricular objectives, content and learning experiences and where they are cost effective relative to other educational approaches. Appropriate synchronous or asynchronous delivery techniques should be used to keep learners, actively participating with the information, instructor, and each other, regardless of distance or location. The outcomes of the distance-learning activities

must be appropriate for the student population and achievable through distance study. Interaction of students across campuses or pathways should be stimulated and encouraged. Outcomes that are not appropriate for distance study should be taught using the most appropriate and cost-effective educational methods. Experts in educational methodology and learning, such as instructional designers and educational psychologists, should be consulted to systematically improve educational materials, the assessment processes, and learning activities.

Standard No. 12. Professional Competencies and Outcome Expectations[3]

Professional competencies that must be achieved by graduates through the professional degree program curriculum are the ability to:

1. Provide pharmaceutical care in cooperation with patients, prescribers, and other members of an inter-professional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, cultural, economic, and professional issues, emerging technologies, and evolving biomedical, pharmaceutical, social, behavioral, and clinical sciences that may impact therapeutic outcomes.

2. Manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.

3. Promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an inter-professional team of health care providers.

These professional competencies must be used to guide the development of stated student learning outcome expectations for the curriculum. To anticipate future professional competencies, outcome statements should incorporate the development of the skills necessary to become self-directed lifelong learners.

Guideline 12.1
Graduates must possess the basic knowledge, skills, and abilities to practice pharmacy, independently, at the time of graduation. In this regard, the college or school should ensure that graduates are competent to (*as adapted from CAPE Educational Outcomes, 2004*):

- **provide patient-centered care,** through the ability to design, implement, monitor, evaluate, and adjust pharmaceutical care plans that are patient specific and evidence-based;

[3] American Association of Colleges of Pharmacy's, Center for the Advancement of Pharmaceutical Education (CAPE), Educational Outcomes, 2004.

- **provide population-based care,** through the ability to develop and implement population-specific, evidence-based disease management programs and protocols based upon analysis of epidemiologic and pharmacoeconomic data, medicate use criteria, medication use review, and risk reduction strategies;
- **manage human, physical, medical, informational, and technological resources**, through the ability to assure efficient, cost-effective utilization of these resources in the provision of patient care;
- **manage medication use systems,** through the ability to apply patient- and population-specific data, quality assurance strategies, and research processes to minimize drug misadventuring and optimize patient outcomes, to develop drug use and health policy, and to design pharmacy benefits; and
- **assure the availability of effective quality health and disease prevention services and health policy,** through the ability to apply population-specific data, quality assurance strategies, and research processes to identify and resolve public health problems and to help develop health policy.

To be capable to do the above, the graduates also must be able to:

- communicate and collaborate with prescribers, patients, care givers, policy makers, members of the community, administrative and supportive personnel, and other involved health care providers to engender a team approach to patient care;
- retrieve, analyze, and interpret the professional, lay, and scientific literature to provide drug information to patients, their families, and other involved health care providers;
- carry out duties in accordance with legal, ethical, social, economic, and professional guidelines; and
- maintain professional competence by identifying and analyzing emerging issues, products, and services.

Standard No. 13. Curricular Core: Knowledge, Skills and Abilities

To provide the thorough scientific foundation necessary for the achievement of the professional competencies, the curriculum of the professional degree program must contain the following:

- biomedical sciences
- pharmaceutical sciences
- social, behavioral and administrative pharmacy sciences
- clinical sciences

Scientific knowledge, practice skills and abilities, and professional behaviors and attitudes must be integrated and applied, reinforced, and advanced throughout the curriculum, including in the pharmacy practice experiences.

Guideline 13.1

The Curriculum Committee or equivalent must be responsible for curricular development, evaluation, and improvement consistent with the collective vision and

understanding of the faculty and the administration and the relevant accreditation standards.

Guideline 13.2

The Curriculum Committee or equivalent should serve as the central body for the management of orderly and systematic reviews of curricular structure, content, process, and outcomes. The committee should assure:

- proper sequencing and integration of courses and materials;
- minimization of unwarranted repetition;
- awareness by faculty of each other's course coverage (including content, depth, methodologies used, and relationship to adopted curricular competencies and outcomes);
- application and reinforcement of curricular content (e.g., basic science faculty providing applications and examples relevant to practice, and practice faculty stressing the scientific basis for pharmacotherapy);
- deletion of outdated or non-essential content;
- provision of a reasonable and balanced course load for students;
- curricular additions are counterpoised with deletions;
- the appropriateness of emphasis and presentation mode to provide the optimal environment for learning;
- assessment of the extent to which innovative teaching methods are effectively deployed;
- consistency of course syllabi;
- periodic mapping of the components of the curriculum to the expected competencies and outcomes;
- standardized allocation of appropriate course credit; and
- systematic application of outcome measures for purposes of improvement.

Guideline 13.3

The biomedical, pharmaceutical, social, behavioral and administrative pharmacy and clinical sciences must be of such depth, scope, timeliness, quality, sequence, and emphasis to provide the foundation for and support of the intellectual and clinical objectives of the professional degree program. The sciences must provide the basis for understanding the use of medications and other therapies to the treatment of humans in health and disease.

The foundation in the sciences (suggested contact hours, including laboratories: 1500) should be roughly allocated as follows:

Basic Biomedical Sciences (suggested contact hours: 375)

Anatomy and Physiology

- structure and function of major body systems: integumentary, muscular skeletal, cardiovascular, lymphatic, respiratory, digestive, nervous, endocrine, urinary, reproductive and body fluid and electrolytes
- molecular aspects of cell biology

- cell physiology and cellular structure and organization

Pathology

- basic principles and mechanisms of disease including:
    - inflammation and repair
    - degeneration
    - disturbances on hemodynamics
    - developmental defects
    - neoplasia

Microbiology

- general principles of microbial concepts
- principles of infectious disease
- host-parasite relationships
- pathogenic micro-organisms of man
- inflammatory responses to infectious agents
- Clinical aspects of infection

Immunology

- human immunity and immune response
- principles of antigen-antibody relationships
- molecular biology of immune response
- genetic basis for antibody synthesis, development, function and immunopathology

Biochemistry/Biotechnology

- chemistry of biomacromolecules (proteins, lipids, carbohydrates and DNA)
- enzymology and co-enzymes and kinetics
- metabolic pathways to energy utilization
- nucleic acid metabolism including DNA replication and repair, RNA and protein synthesis
- recombinant DNA technology

Molecular Biology/Genetics

- cell structure and components
- mitosis and meiosis
- chromosomes and DNA
- gene transcription and translation processes
- recombinant DNA technology

Biostatistics

- understanding basic statistical principles
- basic statistics for analyzing and interpreting data
- management of data sets
- evaluation of statistical results

Pharmaceutical Sciences (suggested contact hours: 495)

Medicinal Chemistry

- physico-chemical properties of drug molecules in relation to drug absorption, distribution, metabolism and excretion (ADME)
- chemical basis of pharmacology and therapeutics
- fundamental pharmacophores for drugs used to treat disease
- structure activity relationships in relation to drug-receptor interactions
- chemical pathways of drug metabolism

Pharmacology

- mechanism of action of drugs in various categories
- pharmacodynamics of drug action and ADME
- drug adverse and side-effects
- drug receptor interactions
- drug-drug, drug-food, drug-lab test interactions

Pharmacognosy and Alternative and Complementary Treatments

- patient use of dietary supplements (vitamins, minerals, and herbals)
- patient use of alternative medical treatments
- evaluation of alternative and complementary medicine safety and efficacy
- herbal-drug interactions

Toxicology

- mechanism of toxicity
- toxic effect of xenobiotics on the body
- including: drug overdose, toxic signs of drugs of abuse

Bioanalysis/Clinical Chemistry

- fundamentals of laboratory medicine and its important to screening, diagnosis and evaluation of patients
- clinical data relevant to disease state management

Pharmaceutics

- physical-chemical principles of dosages forms
- biological principles of dosage forms
- principles of drug delivery via dosage forms (liquid, solid, semi-solid, heterogeneous, homogeneous and systems)
- principles of dosage form stability and drug degradation in dosage forms

Pharmacokinetics

- basic principles of kinetics of ADME
- kinetic principles of pharmacodynamic design
- different models of drug distribution

Pharmacogenomics/genetics

- genetic basis for disease and drug action
- genetic basis for alteration of drug metabolism
- genome and proteomic principles in relation to disease and drug development

Extemporaneous Compounding/ Parenteral/Enteral

- techniques and principles used to prepare and dispense individual extemporaneous prescriptions
- liquid (parenteral, enteral), solid, semi-solid and topical preparations
- dosage calculations
- sterile admixture techniques

Social, Behavioral and Administrative Sciences (suggested contact hours: 240)

Healthcare Delivery Systems

- introduction to US health care system delivery
- social, political and economic factors of the US health care delivery system
- principles that influence the distribution of pharmaceutical products and services
- role of public and private insurers, pharmaceutical industry and managed care on health care delivery in the US

Economics/Pharmacoeconomics

- economic principles in relation to pharmacoeconomic analysis
- concepts of pharmacoeconomics in relation to patient care
- applications of economic theories of evaluation and quality of life concepts to improve allocation of limited health care resources

Practice Management

- management principles applied to various pharmacy practice settings
- principles of planning, organizing, directing and controlling operating pharmacy resources.
- tools need to address change, increase competitiveness and optimize patient services

Pharmacoepidemiology

- application of principles of epidemiology to the study of drug use and outcomes in large populations
- studies that provide an estimate of the probability of beneficial effects in populations, or the probability of adverse effects in populations and other parameters relating to drug use may benefit
- methods for continual monitoring for unwanted effects and other safety-related aspects of drugs

Pharmacy Law and Regulatory Affairs

- legal basis of pharmacy practice and rules of professional conduct

- pharmacist's responsibilities and limits under the law
- pharmacist's role in reducing liability by reducing drug related misadventure
- principles of civil and criminal liability
- principles of business contract law

History of Pharmacy

- overview of the profession of pharmacy
- development of the practice of pharmacy over time

Ethics

- principles of professional behavior
- ethical issues related to the development, promotion, sales, prescription and use of drugs

Social and Behavioral Aspects of Practice

- pharmacy as a profession
- professionalization of the student
- image of pharmacist held by patients
- role of the pharmacist related to patient care
- role of pharmacist related to inaction with other health care professionals

Clinical Sciences (suggested contact hours: 390)

Introduction to Pharmacy Practice and Pharmaceutical Care

- overview of the pharmacy profession
- issues of contemporary practice
- emerging and unique roles for the pharmacist on the health care team
- concepts of pharmaceutical care and medication therapy management services
- principles of pharmacist-managed, patient-oriented pharmacy services
- methods of outcome monitoring and assessment techniques
- development of pharmacy care plans relatives to disease states

Medication Dispensing and Distribution Systems

- prepare and dispense prescriptions
- patient medication profiling
- issues of distribution systems associated with all types of practice settings

Pharmacotherapy

- pathophysiology of various disease states
- principles of drug treatment algorithms for various disease states
- reinforcement of basic science principles relative to drug treatment protocols
- evaluation of clinical trials that validate treatment usefulness
- drug monitoring for positive and negative outcomes

Disease state management-Pediatrics

- pharmacotherapy alterations specific for the pediatric patient
- special dosage calculation and adjustments
- drug monitoring for positive/negative outcomes

Disease state management- Geriatrics

- pharmacotherapy alterations specific for the geriatric patient
- special dosage calculations and adjustment
- drug monitoring for positive and negative outcomes

Clinical Pharmacokinetics

- application of pharmacokinetic and biopharmaceutical principles to drug monitoring
- design of optimum drug dosage regimens

Drug Information

- fundamentals of the practice of drug information
- application of drug information skills for delivery of pharmaceutical care
- technology of drug information retrieval for quality assurance

Literature Evaluation and Research Design

- understanding fundamentals of research design and methodology
- principles of evaluation of the primary literature
- understand the practical implications of the primary literature

Patient Assessment Laboratory

- basics of patient physical assessment skills related to various disease states:
    - blood pressure, heart rate, EKG
    - heart and lung sounds
    - identification of rashes
    - bowel sounds
    - neurological exams
    - clinical lab values especially renal and hepatic function

Guideline 13.4

Where instruction is provided by other academic units of the university, these areas must be developed in accordance with the curricular goals and objectives. Appropriate assessment liaison mechanisms must be established to ensure effective instructional delivery and to assure achievement of the educational objectives of the professional degree program.

Guideline 13.5

A college or school should conduct a cumulative evaluation of the students' science foundation.

Standard No. 14. Curricular Core: Pharmacy Practice Experiences

The college or school must provide a continuum of pharmacy practice experiences throughout the curriculum, from introductory to advanced, to support the achievement of stated professional competencies, as demonstrated by assessment of outcome expectations.

Pharmacy practice experiences must be under the supervision (direct or indirect in the case of co-precepting with other health professionals) of qualified pharmacist preceptors, and must include direct interaction with diverse patient populations in a variety of practice settings, in collaboration with other health professionals.

The objectives for pharmacy practice experiences must include quantified criteria for the types of patients, the level of student responsibility, and the appropriate clinical settings needed for the objectives to be met.

Guideline 14.1

The scope, intensity, and duration of all of the pharmacy practice experiences should afford students the opportunity to develop skills consistent with expected professional competencies and outcomes. The pharmacy practice experiences should ensure that every student has multiple opportunities to perform pharmaceutical/patient-centered care activities in a variety of settings (including acute care, long-term care, home care, community, ambulatory, administrative). The pharmacy practice experiences should be in-depth, highly structured and carefully coordinated. The pharmacy practice experiences should require active participation and patient care responsibilities, in a progressive fashion, designed to develop the practice skills, judgment, professional attitudes, confidence and personal responsibility needed for each student to embark on an independent and collaborative practice to improve patient outcomes as a beginning competent practitioner.

Guideline 14.2

Interaction with other healthcare professionals should occur throughout the pharmacy practice experiences, beginning as early as the Introductory Pharmacy Practice Experiences. Pharmacy students should be exposed to practice settings in which pharmacists work as partners with patients, physicians, nurses, other healthcare professionals and administrators early in the curriculum.

Guideline 14.3

Students must be duly enrolled in the college or school of pharmacy and must not receive monetary remuneration for any professional experiences nor should a student be assigned to a site where a co-existing employer/employee relation exists so as to assure the primacy of an appropriate student/teacher relationship. Students should be under the close supervision of pharmacist preceptors whose qualifications have been verified by the college or school.

Guideline 14.4

General objectives and learning modules as well as site-specific learning objectives should be established for all of the pharmacy practice experiences. The objectives for the pharmacy practice experiences should identify the expected types and volume of patients, the level of student responsibility, and the appropriate clinical settings needed for the objectives to be met. Each pharmacy practice experience that requires interaction with patients should specify the approximate numbers and kinds of patients that students should see in order to achieve the objectives of the learning experience. *(Note: It is not sufficient simply to supply the estimated number of patients students will follow in the pharmacy practice experiences without relating the number and type to the achievement of the expected objectives).* The college or school should specify, for those pharmacy practice experiences, the major disease states/conditions that all students are expected to encounter. The college or school should also specify the extent of student interaction with patients and the settings in which the interactions will occur. A corollary requirement of this guideline is that the preceptors and students will monitor and verify, by appropriate means, the number and variety of patient encounters in which students participate, so that adjustments can be made by the college or school to ensure that all students have the desired pharmacy practice experiences. In this regard, goals and objectives for each pharmacy practice experience should be mapped to the professional competencies to ensure that, when taken as a whole, each student's experiential education will provide opportunity to achieve the stated competencies. Colleges and schools are encouraged to utilize computerized programs to manage the pharmacy practice experiences.

Guideline 14.5

Specific criteria should be developed to enable faculty and students to assess progress mid-way through the experience and at its completion. Students should be provided the opportunity to demonstrate achievement of stated competencies as assessed through the use of reliable, validated criteria.

Guideline 14.6

Faculty teaching the pharmacy practice experiences should hold full, shared or adjunct positions in the college or school and should be well versed in the outcomes expectations for students and the pedagogical methods which best enhance learning. In this regard, all preceptors responsible for the provision of pharmacy practice experiences must receive orientation and training prior to assuming these responsibilities. Preceptor training should include:

- orientation to the college or school's mission and goals;
- review of the college or school's curriculum and teaching methodologies;
- review of the specific goals and objectives for the respective pharmacy practice experiences;
- guidance regarding the assessment of students' prior knowledge and experience relative to the rotation's objectives so that the preceptor may tailor the rotation to maximize the educational experience and ensure appropriate student interaction with patients and other health professionals; and
- additional preceptor training as needed.

Guideline 14.7

The pharmacy practice experiences require close supervision of and significant interaction with students, and thus the college or school should ensure that not too many students are scheduled in a practice experience at one time, in order to prevent adverse effects on the educational experience. The faculty/student ratio for the pharmacy practice experiences should be adequate to provide individualized instruction, guidance, and evaluative supervision by pharmacy faculty. Important factors to be considered to assure these goals are the number of students each faculty member is assigned during the Introductory Pharmacy Practice Experiences, and, particularly, during the Advanced Pharmacy Practice Experiences, the nature of the practice setting, and the character of instructional delivery. Student/faculty ratios should provide for optimal guidance and assessment during pharmacy practice experiences. Under most circumstances, the student to preceptor ratio during Advanced Pharmacy Practice Experiences should be 1:1 and should not exceed 2:1. When assigning students to preceptors, the other commitments of the preceptor should be considered such that students are not assigned for an excessive number of rotations.

Guideline 14.8

The college or school should identify preceptors who will be positive role models for students and who possess the following characteristics:

- assume personal responsibility for patient outcomes;
- professional training commensurate with position;
- minimum of one year of professional experience;
- competence in the area of practice;
- involved in professional organizations;
- utilize clinical and scientific publications in clinical care decision-making;
- demonstrate of the role of science in allowing informed practice;
- demonstrate a desire and an aptitude for teaching;
- demonstrate the ability to assess and document student performance;
- practice continuing professional development; and
- collaborate with other healthcare professionals as a member of a team;
- demonstrate commitment to their organization, professional societies and the community.

Guideline 14.9

The college or school should obtain anonymous assessment of performance of preceptors from students including an evaluation of each preceptor's:

- teaching ability;
- communication skills; and
- effectiveness related to pharmacy education.

Guideline 14.10

The experiential director should have sufficient practice, academic, and management expertise to have credibility with other faculty and practitioners as well as direct the program in a manner that facilitates the college or school's ability to influence

advancement of the practice of pharmacy. The experiential director should be a member of the administrative leadership team and serve on key committees, such as the Curriculum Committee.

Guideline 14.11

The Introductory Pharmacy Practice Experiences must involve a minimum of 300 hours of instructional time. The Introductory Pharmacy Practice Experiences should occur during the early sequencing of the curriculum for purposes of providing initial experiential activities and patient care responsibilities for all students regardless of previous experience in the field of pharmacy. Such practice experiences should be organized as a progressive continuum so as to support growth in the student's capabilities to render patient-centered care as a competent, independent practitioner. As they progress through the Introductory Pharmacy Practice Experiences, students should be afforded the ability to demonstrate increasing mastery of the competencies and the experiences should provide them with increasing patient care responsibilities. At least some of the Introductory Pharmacy Practice Experiences must involve actual practice experiences in community and institutional settings and permit students to assume direct patient care responsibilities. Additional practice experiences in other types of practice settings (including long-term care pharmacies, etc.) may also be utilized. The Introductory Pharmacy Practice Experiences should be interfaced with an introduction to the profession.

The Introductory Pharmacy Practice Experiences should be designed either in conjunction with didactic courses or as a separate experiential offering. The Introductory Pharmacy Practice Experiences may occur utilizing various formats including:

- shadowing of practitioners or students on advanced practice experiences;
- interviews with real patients;
- service learning (See Guideline 14.12); and
- real practice experiences in community, institutional, long-term care pharmacies, etc.

Regardless of the format utilized, the college and school should ensure that the Introductory Pharmacy Practice Experiences consistently expose students to activities, in a graded fashion, as allowed by law, which are expected to enable growth in the student's ability to achieve the professional competencies. In this regard, colleges and schools are encouraged to identify or develop Introductory Pharmacy Practice Experiences that consistently expose students to and allow participation in activities, such as, but not limited to:

- processing new/refill medication orders;
- conducting patient interviews to obtain patient information;
- creating patient profiles using information obtained;
- responding to drug information inquiries;
- interacting with other health care professionals;
- participating in educational offerings designed to benefit the health of the general public;

- interpreting and evaluating patient information;
- dispensing medications;
- assessing the need for treatment or referral;
- identifying patient-specific factors that affect health, pharmacotherapy, and/or disease state management;
- assessing patient health literacy and compliance;
- performing calculations required to compound, dispense, and administer medications;
- administering medications;
- providing point-of-care and patient-centered services;
- conducting physical assessments;
- preparing and compounding extemporaneous preparations and sterile products;
- communicating with patients and other health care providers;
- interacting with pharmacy technicians in the delivery of pharmacy services;
- documenting interventions in patient records;
- presenting a patient case; and
- billing third parties for pharmacy services.

Guideline 14.12

Service learning is a structured learning experience with explicit objectives that combines performing service in the community with preparation, reflection, and discussion. Service learning experiences per se do not necessarily qualify as Introductory Pharmacy Practice Experiences, unless it specifically includes activities as noted in Guideline 14.11. Otherwise, the college or school may utilize such experiences to complement the Introductory Pharmacy Practice Experiences. Colleges and schools utilizing service learning activities, whether as part of the Introductory Pharmacy Practice Experiences or not, should ensure that such activities:

- meet the needs of the community;
- establish a relationship between the community and the academic institution;
- help foster civic responsibility or the development of a sense of caring for others;
- are integrated into the required academic curriculum;
- provide structured time to reflect on the service learning experience;
- enhance what is taught in the didactic curriculum by extending student learning beyond the classroom and into the community;
- provide opportunities for interaction with other health professional students and practitioners; and
- attempt to balance the service that is provided and the learning that takes place.

Guideline 14.13

The organization of the Advanced Pharmacy Practice Experiences should provide a balanced series of required and elective experiences that cumulatively provide sustained experiences of adequate intensity, breadth, and duration to enable achievement of stated competencies as demonstrated by assessment of outcomes expectations. Generally, the required and elective experiences should be full-time and provide continuity of care, with pharmacy preceptor supervision and monitoring. The duration of the Advanced Pharmacy Practice Experiences minimally should be the equivalent of one academic year

or a minimum of 1440 hours of instructional time. Required experiences should include primary, acute, chronic and preventative care among patients of all ages and develop pharmaceutical care capabilities in the following settings:

- community care
- hospital/institutional care;
- ambulatory care; and
- acute care/general medicine.

Elective experiences should complement the required experiences and provide adequate and innovative opportunities for students to mature professionally in accord with their individualized interests. Whenever possible, the required experiences should occur prior to the elective experiences. Most of the time assigned for students in Advanced Pharmacy Practice Experiences should involve direct patient care. Direct patient care experiences should be of sufficient length to provide both continuity of patient care and an opportunity for the student to practice the competencies associated with that practice setting. However, Advanced Pharmacy Practice Experiences in other professional settings such as research, management, drug information, education, managed care, and home health care should be available. The series of required and elective experiences should be coordinated to achieve, in composite, the experiential whole of the Advanced Pharmacy Practice Experiences. Elective experiences outside the U.S. are acceptable, if they help address the competencies required of the graduate and there is evaluation by a qualified preceptor.

The college or school should ensure that the Advanced Pharmacy Practice Experiences consistently expose students to activities expected to permit continued progress in the student's ability to achieve the professional competencies. Colleges and schools are encouraged to identify or develop Advanced Pharmacy Practice Experiences that consistently allow students to perform activities that build upon those activities listed for the Introductory Pharmacy Practice Experiences. **Activities in which students should participate in during any required Advanced Pharmacy Practice Experiences (community care, hospital/institutional care, ambulatory care, and acute care/general medicine) include, but are not limited to:**

- practicing as a member of an inter-professional team;
- identifying, evaluating and communicating to the patient and other health care professionals, the appropriateness of the patient's specific pharmacotherapeutic agents, dosing regimens, dosage forms, routes of administration and delivery systems;
- recommending prescription and non-prescription medications, dietary supplements, diet, nutrition, traditional non-drug therapies and complementary and alternative therapies;
- administering medications (where legally permitted);
- identifying and reporting medication errors and adverse drug reactions;
- managing the drug regimen through monitoring and assessing patient information;
- consulting with patients regarding self-care products;
- providing pharmaceutical care to a diverse patient-population;
- providing patient education to a diverse patient-population;

- educating the public and health care professionals regarding medical conditions, wellness, dietary supplements and medical devices;
- retrieving, evaluating, managing and utilizing clinical and scientific publications in the decision-making process;
- accessing, evaluating and applying information to promote optimal healthcare;
- ensuring continuity of pharmaceutical care between health care settings;
- participating in discussions regarding compliance with accreditation, legal, regulatory and safety requirements;
- participating in discussions regarding the drug approval process and the role of key organizations in public safety;
- participating in discussions concerning key health-care policy matters that may affect pharmacy; and
- evaluating functionality of technology.

Additional activities in which students should be able to participate in during required community and hospital/institutional Advanced Pharmacy Practice Experiences include:

- preparing and dispensing medications;
- managing systems for storage, preparation and dispensing of medications;
- allocating and utilizing key resources and supervising pharmacy technical staff;
- participating in purchasing activities;
- creating a business plan to support a patient care service including determining the need, feasibility, resources and sources of funding;
- managing the medication use system and apply the systems approach to medication safety;
- participating in the pharmacy's quality improvement program;
- participating in the design, development, marketing and reimbursement process for new patient services;
- participating in discussions of human resources management, medication resources management, and pharmacy data management systems including pharmacy workload and financial performance;
- participating in the pharmacy's planning process;
- consulting with patients regarding self-care products;
- conducting a drug use review;
- managing the use of investigational drug products;
- participating in the health-system's formulary process;
- participating in the management of medical emergencies; and
- performing prospective and retrospective financial and clinical outcomes analyses to support formulary recommendations and therapeutic guideline development.

Additional activities in which students should be able to participate in during required ambulatory care and acute/general medicine Advanced Pharmacy Practice Experiences include:

- developing and analyzing clinical drug guidelines;
- participating in the health-system's formulary process;

- participating in the design, development, marketing and reimbursement process for new patient services; and
- participating in discussions of human resources management, medication resources management, and pharmacy data management systems including pharmacy workload and financial performance.

Guideline 14.14
A quality control procedure for the Pharmacy Practice Experiences should be established to facilitate achievement of stated competencies, provide for feedback, and ensure consistency and inter-rater reliability in assessment of student performance. All practice facilities and preceptors should be selected in accordance with quality criteria established and reviewed periodically, in accordance with the quality control procedure of the college or school. In this regard, the college or school should develop a template of the ideal criteria each preceptor and experiential site should have. All sites and preceptors utilized for the pharmacy practice experiences should be evaluated in accordance with the "ideal" site or preceptor. The college or school should implement methods to correct the "deficiencies" any sites or preceptors have when compared to the "ideal."

Standardization of the pharmacy practice experiences should ensure that educational experiences across sites achieve the same educational objectives and competencies. The quality assurance process utilized should incorporate the perspectives of key constituents, such as students, practitioners, prospective employers and board of pharmacy members.

The quality control procedure employed should assure that all practice facilities utilized for the practice experiences meet and sustain conditions necessary to ensure the number of patients and types of activities to which students are exposed on typical rotations are consistent with the stated objectives and will ultimately permit the student to achieve the competencies. The college or school should hold the site to its established goals and objectives, and conduct routine, periodic assessments to ensure the goals are being met.

The college or school should ensure that faculty responsible for quality assurance should have the appropriate expertise, support and authority to implement change.

The quality control procedure employed should utilize a variety of methods including:
- use of a review committee consisting of practitioners, faculty and students; and
- visits to experiential sites conducted by trained individuals.

Guideline 14.15
The college or school should have a summative, standardized, performance-based assessment at the end of the Advanced Pharmacy Practice Experiences to evaluate whether the students have attained the desired competencies prior to graduation.

Standard No. 15. Assessment and Evaluation of Student Learning and Curricular Effectiveness
As a component of its evaluation plan, the college or school must develop and carry out assessment activities to collect information about the attainment of desired student

learning outcomes. The assessment activities must employ a variety of valid and reliable measures systematically and sequentially throughout the professional degree program. The college or school must use the analysis of assessment measures to improve student learning and the achievement of the professional competencies.

The college or school must systematically and sequentially evaluate its curricular structure, content, organization and outcomes. The college or school must use the analysis of outcomes measures for continuous improvement of the curriculum and its delivery.

Guideline 15.1

The college or school's system of evaluation of student learning should:

- utilize a variety of assessments;
- follow a plan that documents how the learning experiences, whether didactic instruction or supervised practice, are appropriate for the development of the competencies, as well as the instructional methods (e.g., presentations, demonstrations, discussions) and materials that should be used;
- demonstrate and document in student portfolios that graduates have attained the desired competencies, when measured in a variety of health care settings ;
- incorporate periodic, psychometrically sound, comprehensive, knowledge-based and performance-based formative and summative assessments;
- utilize procedures that promote integration, application, and assessment of principles, critical thinking, and problem solving, in addition to memorization of specific details or isolated facts;
- include student self-assessments and faculty and preceptor assessments of performance in the professional competencies; and
- ensure consistency and reliability of assessments within and among faculty, practice sites and preceptors.

Guideline 15.2

A system of evaluation of curricular effectiveness must be developed that should:

- foster data-driven continuous improvement of curricular structure, content, process, and outcomes;
- assess the achievement of the desired competencies and outcomes for each of the biomedical, pharmaceutical, social, behavioral, administrative pharmacy and clinical sciences, respectively, as well as the overall curricular competencies and outcomes that reflect incorporation of all of these sciences in pharmacy practice;
- include input from faculty, students, administrators, preceptors, practitioners, state board of pharmacy members, and others;
- foster and assess self-initiated student learning;
- foster and assess experimentation and innovation;
- is responsive to changes in pharmacy practice, educational and practice technologies; and
- ensure that educational settings and methods of instruction lead to effective and efficient learning experiences.

Guideline 15.3
The college or school must ensure the credibility of the degrees it awards and the integrity of student work. Formal examinations should take place under circumstances that assure student identification and limit opportunities for academic misconduct.

Guideline 15.4
Student portfolios should be employed to document students' progressive achievement of the competencies throughout the curriculum and the practice experiences. The portfolios should be standardized and include some aspect of student self-assessment, as well as faculty and preceptor assessments of the educational outcomes.

STANDARDS FOR STUDENTS

The purpose of the standards under this heading is to assure that the college or school has adequate resources, fair and equitable policies and procedures and capabilities to identify, inform, admit, and support the academic progression, personal and professional development needs of students, while taking into account their opinions on quality improvement.

Standard No. 16. Organization of Student Services

The college or school must have an organizational element(s) devoted to student services. The administrative officer responsible for this organizational element must oversee and coordinate the student services of the college or school.

Guideline 16.1
The college or school must ensure that the organizational element(s):

- has adequate personnel and resources to undertake its responsibilities;
- links with university student services;
- is responsible for student recruitment programs, administration of the admissions and progression processes;
- is responsible for the orientation of potential and new students, including the describing of the educational philosophy of the college or school and the relationship to its mission;
- provides informational materials (printed and/or electronic) such as a student handbook of relevant policies and procedures including the honor code and a bulletin describing the college or school and the pharmacy degree program;
- administers student scholastic and professional awards and scholarships;
- provides academic advising and career-pathway counseling adequate to the needs of students, including those in alternate curricular pathways;
- coordinates the availability of personal counseling for students through university resources or by other arrangements;
- identifies the professional technical standards required as part of the admissions process;
- participates in activities that support to the development of students as professionals;
- provides or otherwise makes available training for advisors, tutors, counselors, and others involved in providing student services; and

- verifies completion of degree requirements.

Guideline 16.2
The college or school must demonstrate that an ordered, accurate, and secure system of student records is maintained. Student records should be confidential, with access limited to authorized persons. Students should be informed of the right of access to their own records.

Guideline 16.3
The college or school must provide students with financial aid information and guidance.

Guideline 16.4
The college or school should ensure access to adequate health and counseling services for students, including during times of assignment to off-campus sites. Appropriate immunization standards should be established, along with the means to ensure that such standards are satisfied.

Guideline 16.5
The college or school must establish and implement a policy on student affairs, including admissions and progression, that assures non-discrimination as defined by state and federal laws and regulations, such as on the basis of race, religion, gender, lifestyle, sexual orientation, national origin, or disability.

Standard No. 17. Admission Criteria, Policies, and Procedures
The college or school must produce, and make available to students and prospective students, criteria, policies, and procedures for admission to the professional degree program. Admission materials must clearly state academic expectations and professional standards for graduation. Student enrollment must be managed in alignment with available financial, faculty, staff, practice site, preceptor, and administrative resources. The final responsibility for enrollment and selection of students must be held by a duly constituted faculty committee of the college or school.

As a component of its Evaluation Plan, the college or school must regularly assess the criteria, policies and procedures to ensure the selection of students who have the potential for academic success in the professional degree program and the ability to achieve the professional competencies and to practice in culturally diverse environments.

Guideline 17.1
The pre-professional educational requirements for admission to the professional degree program should provide basic sciences requisites, such as general chemistry, organic chemistry, biological sciences (with a strong focus on human processes and diseases), mathematics, information and communication technologies, and physical sciences. Moreover, sufficient general education, defined as humanities, behavioral sciences, social sciences, and communication skills, should be provided in the pre-professional requirements that encourages the broadening of intellectual powers and interests and facilitates the development of professional practitioners capable of understanding a

culturally diverse society and their role in it as health care providers. Elements of general education also may be attained concurrent or integrated with the curriculum for the professional degree program.

Guideline 17.2
Students may be admitted to the professional degree program under an early assurance program. In such an admissions arrangement, a formal and published agreement should exist between the college or school and the associated institution(s), if any. The early assurance student should be admitted to the professional degree program contingent upon successful completion of entrance requirements and application procedures.

Early assurance students entering the first professional year of study, as defined by these Standards, should be as well qualified as students applying for direct entry into the first professional year.

Guideline 17.3
Admissions criteria, policies, and procedures should define not only the necessary scholastic accomplishments, but also other desirable qualities such as intellectual curiosity, leadership, emotional maturity, empathy, ethics, motivation, industriousness, and communication capabilities, that show the student's potential to become a self-directed life-long learner and an effective professional. Efforts should be made in the selection of students to foster diversity. In person interviews of applicants with evaluation of written and verbal communication skills, their understanding of the pharmacy profession, and an assessment of their motivation and character, must be part of the admission process. Factors that may impact eligibility for future licensure, such as criminal activities involving drugs and other felonies, should be assessed.

Guideline 17.4
Admissions criteria should use measures of achievement in the stipulated pre-professional requirements and other postsecondary undertakings, and should employ and set performance expectations for such other tests, evaluations, or interviews, that the college or school has demonstrated to be useful in selecting students who have the potential for success in the professional degree program and the profession.

Guideline 17.5
A recruitment program should be established to provide a pool of well-qualified and diverse applicants for the available positions. Admission criteria, policies and procedures must not be compromised despite the size and quality of the applicant pool.

Guideline 17.6
As a component of its evaluation program, the college or school should undertake studies to correlate admissions criteria, policies and procedures with student achievement in the professional degree program and performance in professional practice.

Guideline 17.7*

Colleges and schools should assess through admissions counseling procedures whether a student who will be learning at a distance has the self-motivation, commitment, skills and competencies to benefit from and succeed in a distance-learning environment. Information gained should be used to update future admission and recruitment policies and decisions. All students admitted into distance-learning programs or pathways should possess the basic technological knowledge and skills to use any equipment. The college or school should also provide orientation, training and remediation to help students become proficient in the use of the program's technology and educational methodologies, and to ensure a high level of student motivation and quality of learning. Where the effectiveness of new program initiatives is not yet determined, initial course, pathway or program enrollments should be limited and increased gradually until the effectiveness of the initiative is established. Consultation with ACPE must occur at least six months before recruiting students into new pathways or programs.

Standard No. 18. Transfer of Credits and Waiver of Requisites for Admission with Advanced Standing

The college or school must produce, and make available to students and prospective students, transfer credit and course waiver policies, based on rational procedures and defensible assessments.

Guideline 18.1

If the college or school has a curricular pathway for non-traditional students, for example, graduates of an ACPE-accredited baccalaureate in pharmacy program, admission criteria and transfer credits should be customized in accordance with the results of the candidate's individualized assessments deploying educational economies and efficiencies and assuring comparability of the professional competencies and outcome expectations.

Requisites may only be waived based upon an educationally sound assessment of the professional competencies (as set forth in Standard No. 10), which may have been achieved through continuing pharmacy education, other postgraduate education and training, and the quality and quantity of previous pharmacy practice experience.

Guideline 18.2

The college or school must implement policies and procedures for the evaluation of the equivalency of educational courses (pre-professional or professional) prior to admission or transfer to the professional degree program.

Guideline 18.3

Credits toward completion of the professional program in pharmacy may be transferred from another ACPE-accredited professional degree program, and requisites may be waived on the basis of rational procedures and defensible assessments.

Guideline 18.4*

Colleges and schools offering multiple professional degree program pathways must establish and implement policies and procedures for students who request to transfer credits or who which to change from one program pathway to another.

Standard No. 19. Progression of Students

The college or school must produce, and make available to students and prospective students, criteria, policies, and procedures for academic progression, academic probation, remediation, missed course work or credit, dismissal, readmission, rights to due process, and appeal mechanisms.

Guideline 19.1

Collectively, the admission criteria, policies and procedures, student services, curricular evaluation and revision, including formative and summative assessment of competencies, should maximize the likelihood of successful student completion of the professional degree program in the expected timeframe.

Guideline 19.2

The college or school's monitoring system of student performance based on assessments of learning outcomes must allow for the early detection, through formative assessments, of academic difficulty. The college or school should provide a system of access for individualized student services, such as tutorial support and faculty advising.

Guideline 19.3

The college or school should have records of student retention and attrition for purposes of identifying trends, analyzing them, and making programmatic adjustments, as appropriate.

Guideline 19.4*

The college or school offering multiple professional degree program pathways must assure that these students have a comparable system of access of individualized student services.

Standard No. 20. Student Complaints Policy

The college or school must produce, and make available to students a complaints policy that includes procedures to be followed in the event of a written complaint related to one of the accreditation standards, student rights to due process, appeal mechanisms, and information on how students can submit a complaint to ACPE for unresolved issues on a complaint related to the accreditation standards.

Guideline 20.1

The college or school must include information about the complaint policy during student orientation and should reinforce its availability periodically during the professional degree program.

Guideline 20.2

The college or school must maintain a chronological record of student complaints related to accreditation issues and allow inspection of the records during on-site evaluation visits by ACPE.

Guideline 20.3
The college or school must inform ACPE during its on-site evaluation if any of the student complaints related to the accreditation standards have led to legal proceedings, and the outcomes of such proceedings.

Standard No. 21. Program Information
The college or school must produce, and make available to students and prospective students, a complete and accurate description of the professional degree program, including its current accreditation status.

Guideline 21.1
A current description (electronic and/or printed) such as a college or school catalog, a student handbook or related documents should be available which include at least the following:

- the mission, goals, objectives and educational philosophy of the professional degree program;
- the curricular plan, courses, and credit hours;
- resources available to support the curriculum;
- criteria, policies and procedures relating to admissions, progression, and access to student records;
- students code documents, such as ethics, conduct, and professional behavior;
- off-campus curricular requirements, such as practice experiences in other geographic locations;
- graduation requirements;
- tuition and fees, including refund policies;
- financial aid guidance;
- statement of nondiscrimination;
- provision for on and off-campus housing, including availability during off-campus practice experiences;
- graduation and placement rates;
- current accreditation status of the program;
- recent pass rates on the standardized licensure examinations;
- expectations for attitudes, values, traits, and ethics required in the profession;
- a description of policies regarding student life, such as, accommodations for disabilities, harassment, anti-violence, and others; and
- immunization and other health requirements.

Guideline 21.2*
Admissions policies, procedures, and practices must fully and clearly represent the conditions and requirements related to distance learning, including full disclosure of any requirements that cannot be completed at a distance. Colleges and schools offering multiple program pathways should assess appropriate tuition and fees for facilities and services rendered. An explanation of tuition and fee differences between pathways or differences in facilities and services between pathways should be available upon request.

Standard No. 22. Student Representation and Perspectives
The college or school must include student representation and perspectives on committees, in policy-development bodies, and in assessment and evaluation activities.

Guideline 22.1
The college or school should have a student government as well as suitable committees, such as a student/faculty relations committee, to develop student leadership and professionalism, to insure a forum for student dialogue, and to assure adequate communication of student opinions and perspectives.

Guideline 22.2
The college or school should involve elected student representatives on appropriate program committees, as well as in accreditation self-studies and strategic planning activities.

Guideline 22.3
Instruments and techniques, such as, course evaluations, focus groups, meetings with the Dean or other administrative leaders, exit interviews and nationally standardized surveys (e.g., those available through the American Association of Colleges of Pharmacy), should be systematically employed to obtain student perspectives of faculty, curriculum, and other aspects of the professional degree program. The assessment data so obtained should be systematically analyzed and used to improve continually all aspects of the program, and to allow for longitudinal and cross-program evaluation. The college or school should share with students the aggregate results of their participation in the systematic process of program evaluation and improvement.

Guideline 22.4*
Students should be provided with equitable representation regardless of the pathway in which an individual student may be enrolled.

Standard No. 23. Professional Behavior and Harmonious Relationships
The college or school must provide an environment and culture that supports professional behavior and harmonious relationships between students, faculty, preceptors, and staff. Faculty, preceptors and staff must be committed to developing professionalism and fostering leadership in students, and to serving as mentors and positive role models for students.

Guideline 23.1
The college or school must develop, via a broadly based process, a policy on student, faculty, preceptor and staff professionalism that defines expected behaviors and consequences for deviation from the policy, as well as due process for appeals.

Guideline 23.2
The college or school should foster and support opportunities for students to participate in student self-government.

Guideline 23.3
The college or school should support students, faculty, preceptors and staff participation in, as appropriate, local and national pharmacy, scientific and other professional organizations.

Guideline 23.4
The college or school should implement strategies and programs to broaden the professional horizons of students in areas such as scientific inquiry, scholarly concern for the profession, the relevance and value of research, and post-graduate education and training, through guest lecturers, participation in curricular and extracurricular activities, service learning and other beneficial activities, including White Coat Ceremonies that welcome students into the profession of pharmacy.

Guideline 23.5
The college or school should provide evidence of harmonious relationships between students, faculty, preceptors and staff, through the results of surveys or other means.

Guideline 23.6
Student interactions with faculty, preceptors and staff should be facilitated through formal and informal activities. Faculty guidance for student committees and attendance by faculty, preceptors and staff at student functions, both professional and social, are urged as effective means of fostering harmonious relationships and serving as positive role models. Student interactions with residents and fellows, and informal mentoring of students by residents or fellows, should be maximized whenever possible.

STANDARDS FOR FACULTY AND STAFF

The purpose of the standards under this heading is to assure that the college or school has fair and equitable policies and procedures and capabilities to attract, develop and retain an adequate and appropriate number of qualified faculty and staff to contribute to and achieve the mission and goals.

Standard No. 24. Faculty and Staff: Quantitative Factors

The college or school must have on site a sufficient number of qualified full-time faculty and staff to deliver and evaluate effectively the professional degree program, while providing adequate time for faculty development, research and other scholarly activities, service and pharmacy practice.

Guideline 24.1
The full-time faculty and staff may be complemented by part-time (co-staffed or co-funded) and voluntary faculty. Voluntary faculty should have adjunct or other appropriate academic titles.

Guideline 24.2
Full-time faculty should comprise an appropriate mix and balance of academic titles and experience within each discipline.

Guideline 24.3

The number of full-time faculty must be sufficient to ensure time for:

- effective organization and delivery of the curriculum, through classroom, small group, laboratory, practice simulation, and oversight and provision of experiential education;
- faculty mentoring;
- student advising and mentoring;
- research and other scholarly activities;
- faculty development as educators and scholars;
- service and pharmacy practice;
- participation in college or school and university committees; and
- assessment and evaluation activities.

The above should be achieved without undue stress on faculty, staff and administration, and without the need for the college or school's administrators to have a primary role in these areas. In general, such a nucleus of full-time faculty should represent student to faculty ratios (including students in all pathways) in line with data collected annually by the American Association of Colleges of Pharmacy (AACP) for programs of similar size and mission.

Guideline 24.4

The student to preceptor ratio for the practice experience components of the curriculum should be adequate so as to provide individualized instruction, guidance, and evaluative supervision. Important factors to be considered to assure these goals are the number of students each faculty member or preceptor is assigned during the Introductory Pharmacy Practice Experiences, and, particularly, during the Advanced Pharmacy Practice Experiences, the nature of the practice setting, and the character of instructional delivery. Under most circumstances, the student to preceptor ratio during Advanced Pharmacy Practice Experiences should be 1:1 and should not exceed 2:1. The additional assignment of students in the Introductory Pharmacy Practice Experiences to preceptors of students in the Advanced Pharmacy Practice Experiences should not be of such a magnitude that it interferes with the Advanced Pharmacy Practice Experiences. Preceptors should not be assigned students for an excessive number of consecutive rotations.

Guideline 24.5

Adequate staff resources, such as administrative assistants, secretaries, student services personnel, teaching assistants, laboratory technicians, and information and communication technology personnel should be provided to support effective operation of the college or school.

Guideline 24.6

An adequate quantitative strength of the faculty and staff should be assured through capacity planning and recruitment and retention strategies that take into account substantive program changes, retirements, potential illness and the time needed to prepare for the respective responsibilities in the program. All faculty should have adequate time,

commensurate with their teaching experience and familiarity with the subject matter, to prepare course work prior to the start of a class. Practice faculty should adequate time (usually six months) to develop experiential practice sites prior to student assignment.

Standard No. 25. Faculty and Staff: Qualitative Factors

The college or school must have qualified faculty and staff who, individually and collectively, are committed to the mission and goals, respect their colleagues and students, and foster their development. Faculty must possess the required professional and academic expertise, contemporary knowledge and abilities in current educational philosophy and techniques, and be committed to the advancement of the profession, and the pursuit of research and other scholarly activities.

Faculty whose responsibilities include the practice of pharmacy must satisfy all professional licensure requirements that apply to their practice.

Guideline 25.1

All full-time faculty should hold an earned degree appropriate to their responsibilities in the program. Faculty in the pharmaceutical sciences should have post-doctoral research training. Pharmacy practice faculty should possess additional professional training (residency, fellowship and/or equivalent experience) and credentials (for example, specialty certification) relevant to their practice and teaching responsibilities.

Guideline 25.2

The college or school must establish and implement a process to validate all educational and training credentials of faculty and staff, and to assure that other criteria, for example, criminal records, have been researched and considered.

Guideline 25.3

The college or school must ensure that policies and procedures for faculty recruitment, promotion, tenure (if applicable) and retention are established and applied in a consistent manner.

Guideline 25.4

The college or school must ensure that the faculty composition and their respective internal and external relationships includes the relevant disciplines within the biomedical, pharmaceutical, social, behavioral and administrative pharmacy and clinical sciences, to meet the education and research needs, as defined by the mission statement. Faculty should provide students both content and perspectives unique to their discipline, and critical to problem solving and life-long learning. All faculty regardless of their discipline must have or develop a conceptual understanding of current and proposed future pharmacy practice in a variety of practice settings.

All faculty should have a conceptual understanding of the scholarship and research of their colleagues in the other academic disciplines within the college or school to assure understanding of the foundations of the curriculum and foster collaborative teaching and research.

Guideline 25.5
The college or school should select faculty and staff in accordance with a policy that assures nondiscrimination, as defined by state and federal laws and regulations, on the basis of race, religion, gender, lifestyle, sexual orientation, national origin, or disability. The college or school should seek diversity in its recruitment of faculty and staff.

Guideline 25.6
All pharmacy practice faculty (full-time, part-time and volunteer), consistent with their academic responsibilities, should be actively engaged in direct patient care. This activity not only contributes to the maintenance and enhancement of practice skills of faculty, but is fundamental to the development of those skills in students.

Guideline 25.7
The faculty must have the capability and continued commitment to be effective teachers. Effective teaching requires knowledge of the discipline, effective communication skills, and an understanding of pedagogy, including construction and delivery of the curriculum. Faculty should deploy educational technologies and techniques that support various modes of educational delivery, such as simulations and case studies, and evaluation, such as test construction and clinical performance assessments. Educational support systems should be provided to practitioners serving as voluntary faculty in the professional experience program.

Guideline 25.8
Whether or not graduate education is a component of the college's or school's mission, faculty should have a responsibility to generate and disseminate knowledge through scholarship. Scholarship, including the scholarship of teaching, should be evident and demonstrated by productive research and other scholarly activities, such as contributions to the scientific, professional, and educational literature, publication of books and review articles, and successes in securing extramural funding in support of research and other scholarly activities. The college or school should foster an environment that encourages contributions by the faculty to the development and transmission of new knowledge, and should contribute to the advancement of knowledge and to the intellectual growth of students through scholarship. The college or school is encouraged to provide, or be affiliated with institutions that provide, postgraduate education and training, including residency and fellowship programs.

Guideline 25.9
The college or school must not allow the quantity or source of faculty extramural funding or consultative activities to be as an excuse for abrogation or inferior performance of the responsibilities and accountability of faculty to the college or school and the professional degree program.

Guideline 25.10*
Faculty, instructors, and teaching assistants involved in distance education should be qualified to not only provide instruction in their respective subject areas, but also be

qualified through training or experience to manage, teach, evaluate, and grade students enrolled in distance learning. The college, school, or institution must provide orientation and on-going training to faculty, instructors, and teaching assistants participating in the program to help them become proficient in the use of the program's technology and educational methodologies, and to ensure a high level of faculty and student motivation and quality of teaching and learning.

Standard No. 26. Faculty and Staff Continuing Professional Development and Performance Review

The college or school must have an effective continuing professional development program for full-time, part-time, and voluntary faculty and staff, consistent with their respective responsibilities. The college or school must review the performance of faculty and staff on a regular basis. Criteria for performance review must be commensurate with the responsibilities of the faculty and staff in the professional degree program.

Guideline 26.1

The college or school must have or provide support for programs and activities for faculty and preceptor continuing professional development as educators, researchers, scholars and practitioners, commensurate with their responsibilities in the program. The programs and activities should:

- support the attainment of the promotion and tenure (if any) requirements;
- support the acquisition or enhancement of skills needed to teach diverse learners;
- assist faculty in efforts to become and remain productive scholars;
- foster the achievement of new credentials;
- address methods to better evaluate student achievement of the desired competencies;
- provide strategies to develop consistent socialization, leadership and professionalism in students throughout the curriculum;
- be mandatory prior to the precepting of students in the experiential components of the curriculum;
- include attendance of relevant professional meetings, continuing education programs and conferences, within and/or external to the college or school;
- encourage continuing professional development awareness and participation among faculty and students;
- provide opportunities for faculty-to-faculty mentoring; and
- assure an understanding of ACPE's accreditation standards, guidelines, policies and procedures, to assist the dean in ensuring compliance.

Guideline 26.2

The faculty and staff evaluation process should be annual, involve self-assessment, and include appropriate input from peers, supervisors, and students. The use of teaching portfolios as faculty self-assessment and improvement instruments is encouraged.

Guideline 26.3

All faculty, commensurate with their responsibilities in the program, should be evaluated as to their:

- teaching abilities, communication skills, and effectiveness related to pharmacy education;
- generation and dissemination of knowledge through research and other scholarly activities;
- commitment to personal continuing professional development;
- contributions to the advancement and promotion of the profession of pharmacy;
- contributions toward advancement of the professional development of students;
- contribution and collegiality in support of achievement of the mission; and
- service contributions to the program and the community at large.

Guideline 26.4

Evidence of the effectiveness of continuing professional development of faculty, as appropriate to their responsibilities in the program, should include:

- evaluation of education, research and other scholarly activities, and practice responsibilities;
- development and evaluation of innovative education, research and other scholarly activity, and practice models;
- participation in professional and scholarly meetings;
- presentation of papers;
- service as an officer or committee member of school or college and external organizations;
- presentation of continuing education programs; and
- other endeavors that promote the profession of pharmacy to society.

Guideline 26.5

All staff should be evaluated, commensurate with their responsibilities, as to their:

- competence in support of administrators, faculty, preceptors, students, alumni and other stakeholders;
- commitment to continuing knowledge and skills development;
- collegiality in support of achievement of the mission; and
- service contributions to the program and the community at large.

Guideline 26.6

The faculty evaluation process should take into account and appropriately recognize efforts of faculty that make contributions toward advancement of the professional development of students, such as academic advising, career pathway counseling, and student organization advising.

Guideline 26.7
The periodic review of the dean and other administrative leaders of the college or school should include input from administrators, faculty, students, and preceptors.

STANDARDS FOR FACILITIES AND RESOURCES

The purpose of the standards under this heading is to assure that the college or school has adequate and appropriate physical, library and learning resource, practice site and financial resources to offer a quality professional degree program in pharmacy and meet its mission and goals.

Standard No. 27. Physical Facilities

The college or school must have adequate and appropriate physical facilities to achieve the mission and goals. The physical facilities must facilitate interaction between administration, faculty and students. The physical facilities must meet legal standards, and be safe, well maintained and adequately equipped.

Guideline 27.1
Physical facilities must provide a desirable, comfortable, and safe environment for teaching and learning and should include:

- offices for administrators and core faculty that provide privacy for study and for counseling and advising students;
- accommodations for staff, commensurate with their responsibilities;
- lecture rooms, small classrooms and conference rooms to accommodate curricular and other programmatic needs;
- facilities for individual and small group study by students;
- information and communication technologies to support the mission, including faculty and staff development, with appropriate data security and recovery systems;
- laboratories dedicated to professional curriculum instruction and practice simulation that are reflective of contemporary pharmacy practice and standards, including facilities for extemporaneous preparation of intravenous and other medications;
- laboratories and other resources, such as instrumentation, to support research and other scholarly activities;
- student activity areas, including space for professional organization materials and meetings, to support a favorable environment for student life; and
- appropriate equipment to support the needs of administration, faculty, preceptors and students that is up-to-date and well maintained.

Guideline 27.2
For colleges and schools that utilize animals in their professional coursework or research, proper and adequate animal facilities must be maintained in accordance with acceptable standards for animal facilities.

Guideline 27.3
For colleges or schools that have dedicated space for human investigation, the space must be kept in accordance with regulatory standards and must assure that all human investigations are approved by an Institutional Review Board.

Guideline 27.4*
Commensurate with the numbers of students, faculty and staff, and the activities and services provided, branch or distance campuses should have physical facilities of comparable quality and functionality to the main campus.

Guideline 27.5*
Students, faculty, instructors, and teaching assistants should have access to appropriate resources so as to assure equivalent program outcomes across all pathways, including access to technical, design, and production services to support the college or school's distance-learning activities and other program initiatives. The selection of educational resources and technologies should be based on appropriateness to the curriculum and students. Restorable backups of critical systems and data should be kept, preferably at locations away from the original systems and data. Furthermore, alternate means of communication and information delivery should be accessible when needed.

Standard No. 28. Practice Facilities
To support the introductory and advanced pharmacy practice experiences and to advance collaboratively the patient care services of the sites, the college or school must establish and implement criteria for the selection of an adequate number and mix of practice facilities and preceptors, and secure written agreements with the selected facilities and preceptors.

Guideline 28.1
Prior to assigning students to a site, the college or school must utilize a process to screen potential sites and preceptors to ensure that the educational experience affords students the opportunity to achieve the stated competencies.

Guideline 28.2
A written affiliation agreement between the site and the college/school must be executed. The agreement should clearly define the responsibilities, commitments and expectations regarding the education of students for each of the parties. Agreements should provide for sufficient advance notification of termination in order to permit development of alternate affiliations should this become necessary. Agreements should also address student-related matters such as health services, malpractice provisions, criminal background checks, immunization policies, and professional conduct.

Guideline 28.3
The college or school should identify a mixture of sites. A site should have the following characteristics:

- meets or exceeds all legal and professional standards required to provide pharmaceutical care;

- has a patient population that exhibits diversity in culture, medical conditions, gender and age, where appropriate;
- has an adequate patient population based on the learning objectives for the rotation;
- has access to learning resources, including library systems;
- has a mission statement that includes a commitment to the education of pharmacy students;
- has a management staff that is supportive of professional staff involvement in the education of pharmacy students;
- has a practice environment that nurtures and supports pharmacist and student interactions with patients;
- provides daily contact with the preceptor or a qualified designee to ensure that students receive feedback and have opportunities to ask questions;
- is adequately equipped with technology needed to support student training and to reflect contemporary practice;
- has a pharmacist that utilizes physical assessment techniques;
- provides medication therapy management services;
- has adequate professional staff, and supportive technical and clerical staff, to meet the learning objectives and to provide for optimum time for preceptor and student interaction;
- provides educational workshops for patients and other health care providers;
- serves as a site for training of pharmacy residents; and
- has established collaborative working relationships and inter-professional training with other healthcare professionals.

Standard No. 29. Library and Educational Resources

The college or school must ensure access for all faculty, preceptors, and students to library and educational resources that are sufficient to support the professional degree program and to provide for research and other scholarly activities in accordance with the mission and goals. The college or school must fully incorporate and utilize these resources in the teaching and learning processes.

Guideline 29.1

The library and educational resources should:

- satisfy generally accepted standards and practices for library and educational resources, and should include the pharmacy library holdings recommended by the American Association of Colleges of Pharmacy (AACP);
- include critical nucleus of holdings and access to full-text biomedical and pharmacy journals and drug information data bases and other resources;
- be under the direction of library and media professionals, who have good working relationships with the college or school;
- provide sufficient study, reading, and computer space for all students, faculty and preceptors;
- include a faculty liaison or committee to assure the adequacy of the collection, educational technologies, and services and ensure their appropriate integration into the teaching program;

- include remote access technologies and mechanisms that promote utilization of library information from off-campus sites by faculty, preceptors and students; and
- have search capabilities, inter-library loans, and other methods for access to materials not in the collection.

Guideline 29.2
The college or school should provide organized programs to teach faculty, preceptors and students the effective and efficient use of the library and educational resources.

Guideline 29.3
To foster improvement, student, preceptor and faculty opinions should be sought and evaluated regarding the adequacy of and access to library and educational resources, and estimates of utilization of should be obtained.

Standard No. 30. Financial Resources
The college or school must have financial resources to accomplish the mission, goals and objectives. The college or school must ensure that student enrollment is commensurate with its resources.

Guideline 30.1
The college or school must operate with a budget that is planned, developed and managed in accordance with sound and accepted business practices. Financial resources should be deployed efficiently and effectively to:

- support all aspects of the mission, goals and strategic plan;
- assure stability in the delivery of the program;
- allow effective faculty and staff recruitment, retention and development;
- maintain and improve physical facilities, equipment and other educational resources;
- enable innovation in education, research and other scholarly activities, and practice; and
- assure an adequate quantity and quality of practice sites to support the curriculum.

Guideline 30.2
Enrollment must be planned and managed in line with resource capabilities, including tuition and professional fees. Programs experiencing substantive changes in scope or student numbers should develop business plans, including revenue and expense *pro forma* for the time period over which the change will occur and beyond. The *pro forma* should demonstrate where resources are being added and how they will meet the program requirements caused by the change(s) over time. Tuition and professional fee increases should be returned to the college or school for purposes of pharmacy program quality assurance and continuing quality improvement. Tuition for pharmacy students should not be increased to support other educational programs.

Guideline 30.3

The college or school, with the support of the university, should develop and maintain a broad base of financial support, including a program to acquire extramural funds through private giving, endowment income, grants, contracts, and other fund raising mechanisms. Resources obtained from extramural sources should be free of restrictions that may interfere with sound educational and ethical policies, and such resources should be used in a manner that maintains the integrity of and supports the mission.

Guideline 30.4

Budget cuts or other financial factors that could negatively impact on the quality of the professional degree program or other aspects of the mission of the college or school should be reported to ACPE in a timely manner as a substantive change.

Guideline 30.5*

The college or school must assure sufficient funds to maintain equivalent facilities and services across all program pathways. Such funding should include regular technological updates. The college or school's initiatives should not adversely affect its administrative effectiveness, result in faculty overload, or cause undo financial stress or instability. New methods of educational delivery should be cost effective; however, financial considerations such as developing economies of scale should not overshadow the requirement to develop academically effective educational experiences.