REQUEST FOR PROPOSAL

to PROVIDE a

PROFESSIONAL DEVELOPMENT PROGRAM

for the RECERTIFICATION of

BOARD-CERTIFIED TRANSPLANT PHARMACISTS

ISSUED BY

BOARD OF PHARMACY SPECIALTIES
SOLID ORGAN TRANSPLANT PHARMACY
SPECIALTY COUNCIL

2215 Constitution Avenue, NW
Washington, DC 20037-2985
202-429-7591

February 2020

This document contains the official Request for Proposal (RFP) specifications. This RFP and the contained specifications supersede any previous documentation you may have received. BPS will issue any writing changes and/or amendments to this RFP to all potential professional development providers. All information contained within this RFP is confidential. Distribution is at the discretion of BPS.
I. INTRODUCTION

The Board of Pharmacy Specialties (BPS) and its Solid Organ Transplantation Pharmacy Specialty Council issue this Request for Proposal (RFP) to identify professional development programs appropriate for the recertification of Board-Certified Transplant Pharmacists (BCTXP). Such programs must provide a postgraduate, curricular approach to instruction in Solid Organ Transplantation Pharmacy, as well as an assessment of the participant’s level of contemporary knowledge and skills consistent with the approved content outline for the Solid Organ Transplantation Pharmacy. The number of programs to be approved is limited, and it is expected that no more than two professional development program (PDP) providers will be approved for this specialty. To have a proposal considered, prospective professional development program providers must already be “accredited providers” of continuing pharmacy education programs by the Accreditation Council for Pharmacy Education (ACPE).

The Board of Pharmacy Specialties is an agency within pharmacy that formally recognizes specialty practice areas and certifies specialists. For each recognized specialty practice area, a Specialty Council is established. The BPS Solid Organ Transplantation Pharmacy Specialty Council was created in 2018 to develop a psychometrically sound and legally defensible certification and recertification process for Transplant Pharmacists. Additional background information can be found in Section VI.

BPS believes the purpose of the recertification is to ensure that board-certified pharmacists maintain knowledge and skills required for a specific level of proficiency in the specialty area and potentially to enhance competence for their current role. Recertification, which is required every 7 years, is a process by which a BCTXP demonstrates maintenance of a defined level of contemporary knowledge and skills in Solid Organ Transplantation Pharmacy and attests to current licensure in pharmacy. Assessment of contemporary knowledge and skills will be accomplished through one of two methods: (1) a multiple-choice and alternate item types examination, or (2) a professional development program. This RFP concerns option 2 only. Contracts for the recertification of BCTXP will be awarded for 2 years beginning January 1, 2021. Another RFP will be issued at year 2 during the contractual term.

The goal of the BPS PDP provider contract will be to provide additional rigor and stability for the recertification of BCTXP. New provider proposals will be reviewed and considered only if a provider is unable to fulfill the terms of the contract or during the regularly scheduled RFP period described above. Although not required, strong consideration will be given to proposals that include collaboration between organizations and PDP providers.

BPS expects that PDP providers will work to enhance the value of its recertification program for board-certified pharmacists, including taking actions to increase the program’s quality, relevance, and meaningfulness while being mindful of time, administrative burden, and costs (monetary and other) associated with participation. In addition, providers are to incorporate components of professionalism and ethics into the programs for recertification. These are not stand-alone components; they should be incorporated where feasible in some or all program offerings.

II. SCOPE OF PROPOSAL

A. Required Items for the Proposal

RFP responses to serve as a Professional Development Program for the Recertification of Board-Certified Transplant Pharmacists must include all of the following items:

1. Title page that includes the RFP subject, name of the organization or lead contractor, address, telephone and fax numbers, e-mail, contact person or project director, and date of submission.
2. Executive summary chart that highlights key elements of the proposal. (See Appendix A for chart format.)
3. List of the specific content areas of the program mapped to the specialty content outline and availability
dates for recertification activities over the 2-year period.
4. Detailed description of the method/format for delivery of content.
5. Estimate of the average cost of continuing education per hour per certificant.
6. Description of the quality assurance process and procedures to update content.
7. Names of qualified experts, peer reviewers, project director, professional and nonprofessional staff, and other volunteers, their pertinent credentials, title, employer, city, and state.
8. Detailed explanation of how assessment will take place and how results will be reported to the participant and to BPS.
9. Description of the provider’s qualifications to deliver programming.

B. Criteria for the Professional Development Program

RFP responses to serve as a Professional Development Program for the Recertification of Board-Certified Transplant Pharmacists must address all of the following criteria:

1. Content must address all four domains of contemporary Solid Organ Transplantation Pharmacy practice, in a curricular approach aligned with the current examination content outline among the program’s total list of offerings. (See Appendix B and the complete current content outline on the BPS website.)
2. Content must be developed by qualified experts in the field. Qualified experts may include any health care practitioner or researcher. A proportion of qualified experts among the professional development program’s total list of offerings must hold BPS board certification in the applicable specialty area.
3. Content must receive peer review to ensure the pertinence and accuracy for the contemporary practice of Solid Organ Transplantation Pharmacy. A proportion of peer reviewers among the professional development program’s total list of offerings must hold BPS board certification in the applicable specialty area.
4. Content must provide a minimum of 30 hours of continuing pharmacy education over a 2-year period. A variety of delivery and instructional methods should be implemented for the purpose of meeting the various learning needs of board-certified pharmacists among a program’s total list of offerings. Content may be delivered to the participant through any appropriate means (e.g., live or recorded lectures, print materials, interactive teleconferences or webinars, CD/DVD, web-based learning methods). Active learning exercises may also be utilized (e.g., adaptive learning, case-based scenarios, discussion, demonstration, role play, simulations, technology-based training).
5. Content must include a brief description of the target audience for each recertification offering beyond the statement of the audience being board-certified pharmacists. The purpose of this request is to better assist board-certified pharmacists in selecting recertification courses and materials that best meet their professional needs.
6. Continuing pharmacy education units must comply with the criteria established by the Accreditation Council for Pharmacy Education (ACPE).
7. Assessment for continuing pharmacy education to evaluate knowledge and cognitive problem-solving skills must be provided as part of the content and should be constructed in a manner that is consistent with a peer-reviewed, evidence-based, defensible process. (See Appendices C and D).
8. Assessment for continuing pharmacy education must be designed to provide feedback to participants (e.g., references, evaluations, constructive criticism, justification/explanation).
9. Assessment expiration dates must be established no later than 6 months after the activity or module release date. An activity or module can be extended beyond 6 months by developing a different assessment.
10. Assessment results and recertification credit for each BCTXP (information on the individuals who successfully complete professional development coursework and activities) must be reported to BPS no later than 6 weeks following the post-test due date. Assessment results and recertification credit must be submitted electronically in a format acceptable to BPS. A report in an Excel file with the following fields is required:
C. Optional Criteria for the Professional Development Program

RFP responses to serve as a Professional Development Program for the Recertification of Board-Certified Transplant Pharmacists may address the following optional criteria:

1. Explore opportunities for collaboration with other prospective professional development programs and/or other organizations in the development of content (e.g., public health, regulatory, statistics) for recertification of board-certified pharmacists across specialties.
2. Explore opportunities to provide one review/recertification course per year allowing board-certified pharmacists to participate in at least two review/recertification courses over one 7-year recertification cycle.

D. Optional Activities for Professional Development Program Innovation and Pilot Initiatives

PDP providers may incorporate innovative and nontraditional learning activities into proposals as pilot initiatives. Activities for board-certified pharmacists should be efficient and relevant to specialty practice and should maintain/enhance specialty knowledge. Innovative and nontraditional learning must have a formal assessment appropriate for the activity.

Offering Credit for Recertification Across Multiple Specialty Areas

PDP providers approved in multiple specialty areas may offer board-certified pharmacists recertification activities for credit from another approved specialty. Content areas that cross multiple specialties must be defined by new or updated treatment guidelines and/or align with the domains in the content outline for each specialty area Credit for recertification claimed by certificants across multiple specialty areas is limited to 42 continuing pharmacy education hours over a seven-year certification cycle. PDP providers must include in any proposal or addendum (1) the rationale and criteria used to consider topics and content, (2) topic and content alignment with the specialty area content outline, and (3) topic and content target audience and applicable specialty practice areas. For more information about the Dual and Multiple Specialty Recertification Offering Program, please visit www.bpsweb.org/recertification/dual-and-multiple-specialty-recertification-offerings.

E. Proposing Addendums to the Recertification Program

BPS recognizes that ideas for innovative programming and activities may develop during the course of a contract term. PDP providers must submit addendum(s) to the original proposal at least 6 months before the activity’s go-live date for consideration and approval by the BPS Solid Organ Transplantation Pharmacy Specialty Council and Board of Directors. (See Appendix E.) It should not be assumed that all addendums will be approved because the overall contract award rests in the strength of the core recertification curriculum submitted in response to this RFP.

III. GENERAL CONTRACTUAL REQUIREMENTS

A. Personnel
A complete roster of all professional and nonprofessional staff who would be assigned to the program shall be provided, along with their credentials, job title, prior work experience related to the job responsibilities and tasks to be performed in this project, and time assigned to this project.

NOTE: The project director and professional staff shall have demonstrated prior experience in the development of professional development programs and in testing and measurement, pertinent to the education and assessment of certified or licensed professionals.

The prospective PDP provider shall provide an organizational chart of the organization.

The prospective PDP provider must disclose the names, addresses, and roles of any subcontractors assigned to the project and provide similar credentials/identification materials, as noted above.

The prospective PDP provider must identify a single organizational point of contact for use by BPS and certificants for information about the program.

The prospective PDP provider must disclose any potential conflicts of interest between the PDP, subcontractor(s), other certification agencies, and BPS.

The prospective PDP provider must agree to provide timely information about the program in response to annual requests from the Solid Organ Transplantation Pharmacy Specialty Council in order to complete the required annual evaluation of the program, and to work with the Solid Organ Transplantation Pharmacy Specialty Council and BPS to correct identified deficiencies.

B. Prior Experience and References

The prospective PDP provider shall document relevant experience in conducting similar or related projects of comparable or larger scope.

A sample of a previously generated technical report summarizing completion of a related project by the PDP provider shall be submitted as an attachment to the proposal. If such reports are confidential and may not be released by the prospective PDP provider, the names of clients from whom a sample report may be requested should be provided if possible.

The prospective PDP provider shall identify at least three individuals or groups that may be contacted to provide performance references. A description of the respective projects, the name and title of the principals to be contacted, and their current addresses and telephone numbers should be included. The prospective PDP provider shall also state that BPS has been granted permission to contact these references.

A listing or an annotated bibliography of relevant projects in the area of professional development (continuing education/assessment) that have been performed and published by the prospective PDP provider or their principals would help to support qualifications.

C. Management Plan

The prospective PDP provider shall present a detailed management plan for completing all of the work specified in the proposal, including a plan for coordination of the work with the Solid Organ Transplantation Pharmacy
Specialty Council and BPS staff. The prospective PDP provider must submit a detailed time and task completion schedule for all activities to be performed.

D. Facilities and Equipment

The prospective PDP provider shall identify the location(s) of the contractor company and any subcontractor(s) and provide a description of these facilities.

The prospective PDP provider shall provide a description of available durable equipment (i.e., computers, printers) that will be utilized for the project by the contractor and any subcontractors.

E. Additional Contract Provisions

1. The prospective PDP provider must be an “accredited provider” of continuing education programs by the Accreditation Council for Pharmacy Education (ACPE) and be in good standing.
2. To facilitate evaluation of proposals, the prospective PDP provider is requested to organize its proposal according to the criteria as presented in Section II.A.
3. The prospective PDP provider shall provide a written attestation that it will comply with all federal, state, and local laws, regulations, and ordinances in undertaking and performing the services called for by this RFP.
4. The prospective PDP provider acknowledges that they will not provide services or engage in business related to the certification or recertification of pharmacy specialists during the contract term that would be in conflict with BPS programs without the written consent of BPS.
5. Proposals submitted must be signed by a company official with authorization to bind the prospective PDP provider to the provisions of the proposal.
6. All proposals submitted should indicate that they are valid for a period of at least 180 days from the submission date of the proposal.
7. The contents of the proposal submitted by a successful PDP provider shall become a contractual obligation if the program is approved.
8. Should the proposal of a prospective PDP provider contain technical information that the PDP provider does not want to be disclosed beyond its use to evaluate the PDP provider’s qualifications, the PDP provider should clearly mark the cover sheet of the proposal with a statement to that effect, specifying the material and the pages restricted.
9. BPS reserves the right to make an award without further discussion after proposals are opened or to reject any or all proposals.

F. Financial Considerations

BPS will assume no financial responsibility for the development, implementation, or promotion of approved professional development programs, nor will BPS seek financial benefit from them beyond the fee description below.

Upon designation as an “approved program,” the PDP provider will be assessed an initial designation fee of $1,000. Each approved program will be evaluated annually to determine whether it continues to meet the stated criteria. If the criteria are adequately met, the program will be designated as an approved program for that year and the PDP provider will be assessed an annual designation fee of $650. These fees are subject to change with 6 month’s notice.

G. BPS Support and Other Resources

The BPS Executive Director, in conjunction with the BPS Senior Director, Professional Affairs, will serve as the primary points of contact during this project, and other staff will be available to assist in carrying out the scope of
work designated in this RFP. The BPS website located at www.bpsweb.org is a resource that is available to all parties responding to this RFP and should be the primary source of information for perspective PDP providers.

IV. INFORMATION and INSTRUCTIONS for SUBMISSION of PROPOSAL

After reviewing the RFP, prospective PDP providers are required to indicate their intent to respond with a proposal. An “Intent to Respond” acknowledgement should be sent via e-mail to BLawson@aphanet.org no later than Wednesday, February 26, 2020. Failure to meet this deadline may result in disqualification. Please include the contact name, phone number, and e-mail address of the individual who will serve as the point of contact for the organization. Questions regarding this RFP should be posed in writing, citing the RFP title, page, section, and paragraph, by the date listed below. Prospective PDP providers’ proposals will be accepted only if submitted via e-mail to Brian Lawson at BLawson@aphanet.org. Inquiries beyond this contract are not recommended and may be cause for declining a proposal.

All responses to questions will be shared with all prospective PDP providers who have notified BPS of their intent to respond. The identity of the prospective PDP provider submitting the question will not be disclosed and will remain confidential. BPS reserves the right to answer only questions pertaining directly to the RFP and this work. Answers may be provided earlier but no later than Wednesday, April 1, 2020.

A. Timetable for Submission and Review of Proposals

<table>
<thead>
<tr>
<th>Submission Process</th>
<th>Date and Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release of RFP:</td>
<td>Wednesday, February 5, 2020</td>
</tr>
<tr>
<td>“Intent to Respond” from prospective PDP providers due to BPS:</td>
<td>Wednesday, February 26, 2020</td>
</tr>
<tr>
<td>Questions from prospective PDP providers due to BPS:</td>
<td>Wednesday, March 18, 2020</td>
</tr>
<tr>
<td>BPS responses to prospective PDP provider questions:</td>
<td>Wednesday, April 1, 2020</td>
</tr>
<tr>
<td>Date and time of closing for submissions: 5pm ET:</td>
<td>Wednesday, June 3, 2020</td>
</tr>
<tr>
<td>Anticipated contract award decision:</td>
<td>Wednesday, August 12, 2020</td>
</tr>
<tr>
<td>Contract period begins:</td>
<td>Friday, January 1, 2021</td>
</tr>
</tbody>
</table>

Submission Format: A single bookmarked portable document format (PDF) is the preferred submission format. Proposals should not exceed 40 pages including all appendices. Proposals should be sent via e-mail to the address below:

Brian Lawson, PharmD
Senior Director, Professional Affairs and International Engagement
Board of Pharmacy Specialties
2215 Constitution Avenue, NW
Washington, DC 20037
Phone: 202-429-4116
E-mail: BLawson@aphanet.org

Incomplete proposals, proposals exceeding the page limit, proposals received after the deadline, and proposals sent by fax or hardcopy may be dismissed without consideration.

BPS will confirm receipt of the “Intent to Respond” and proposals within 48 business hours of the date and time submitted. If notification of receipt is not received after 48 business hours, please contact BPS.

B. Terminology

The word “may” means a certain act is permitted but not required.
The word “must” means the performance of a certain act is a mandatory condition and that there is no choice but to perform the action as described.

The word “shall” is an auxiliary verb utilized in the imperative mood and has the same meaning as “must.”

The word “should” means that there is a strong expectation that a certain act will be performed without a mandatory obligation to perform such an act.

The word “will” is an auxiliary verb denoting future tense only.

C. Queries on the RFP Process

All questions or requests for clarifications regarding this RFP must be directed to:

Brian Lawson, PharmD
Senior Director, Professional Affairs and International Engagement
Board of Pharmacy Specialties
2215 Constitution Avenue, NW
Washington, DC 20037
Phone: 202-429-4116
E-mail: BLawson@aphanet.org

V. SELECTION and EVALUATION of PROPOSALS

Designation of “approved programs” will be based on the completeness and technical quality of the proposal. In addition, the following factors will be evaluated: prospective PDP provider’s qualifications and experience, stated ability to meet the specified timetable, resources and use of technology to create program improvements and efficiencies, and approach to work with a focus on innovation and efficiency consistent with a peer-reviewed, evidence-based, defensible process. Although not required, strong consideration will be given to proposals that include a collaborative relationship with multiple perspective professional development programs or other organizations that meet the needs of Solid Organ Transplantation. Proposals will be evaluated by the Solid Organ Transplantation Pharmacy Specialty Council, the BPS Board, and BPS Staff. Specialty Council recommendations will be presented to the BPS Board for consideration.

The following questions will be used to review the merits of submitted proposals:

A. Has the proposal satisfactorily addressed each of the required items listed in Section II.A.?
B. Has the proposal satisfactorily addressed other contractual matters described in II.B., II.C., and all of III?
C. Is the proposal clear and succinct?
D. Is the prospective PDP provider's approach to professional development programs appropriate to achieve the goals of this project?
E. Is there flexibility in the PDP provider’s approach to accommodate unforeseen circumstances?
F. Is the proposal sufficiently detailed so that an appropriate evaluation can be made of the proposed program?
G. Does the prospective PDP provider have a grasp of the issues connected with developing a program to educate and evaluate the knowledge and skills of Transplant Pharmacists?
H. Is the time schedule reasonable and does the prospective PDP provider have a history of being able to meet deadlines?
I. Does the prospective PDP provider have the desired capability, staff, and experience in developing professional development programs and in project management?
J. Does the prospective PDP provider have the capabilities to offer the program in a variety of formats that
meet the learning needs of BCTXP?

K. Has the prospective PDP provider described any innovative plans that may be of long-term benefit to the specialty of Solid Organ Transplantation Pharmacy?

This RFP is not binding upon BPS. Additional information may be requested, or other selection criteria may be used in evaluating prospective PDP providers. Selection of any PDP provider is at the sole discretion of BPS. This request and any response do not constitute a contract in the absence of a formal written agreement signed by BPS and any PDP provider selected.

Although proposals may be accepted and a contract awarded without discussion, BPS may initiate discussion with the prospective PDP provider should clarification be necessary. Prospective PDP providers should be prepared to provide qualified personnel to discuss technical and contractual aspects of the proposal.

BPS intends to make its final selection by Wednesday, August 12, 2020. The winning prospective PDP provider will be notified of acceptance, and other finalists will be notified of decline. From this milestone and following contract signing, BPS expects contracts to begin Friday, January 1, 2021.

Note: Public announcements or news releases pertaining to any contract awarded should not be made without the written permission of BPS.

VI. BACKGROUND INFORMATION

A. Board of Pharmacy Specialties

In 1971, the Board of Trustees of the American Pharmaceutical Association (now American Pharmacists Association; APhA) appointed a Task Force on Specialties in Pharmacy to conduct a detailed analysis of pharmacy practice. The task force determined that the profession lends itself to specialization and recommended the creation of a Board to recognize specialties and to certify specialists. Seven criteria on which specialty recognition should be based were also recommended. The Board of Pharmaceutical Specialties (now Board of Pharmacy Specialties; BPS) was created on January 5, 1976. The purpose of the Board of Pharmacy Specialties is to formally recognize those areas of pharmacy practice that meet all the established criteria for specialty recognition; certify and recertify practitioners in those formally recognized areas according to established standards; and communicate the importance of board certification to the profession, other health care professionals, and the public in order to protect the public’s health and advance the provision of pharmaceutical care.

When a specialty practice area is officially recognized by BPS, a Specialty Council is formed to direct the development and administration of that certification process. Currently, there are thirteen recognized specialty practice areas: ambulatory care pharmacy, cardiology pharmacy, compounded sterile preparations, critical care pharmacy, geriatric pharmacy, infectious diseases pharmacy, nuclear pharmacy, nutrition support pharmacy, oncology pharmacy, pediatric pharmacy, pharmacotherapy, psychiatric pharmacy, and solid organ transplantation pharmacy.

B. Board Certification in Solid Organ Transplantation Pharmacy

In 2018, BPS officially recognized Solid Organ Transplantation Pharmacy as a specialty practice area. A Solid Organ Transplantation Pharmacy Specialty Council was formed and charged with developing a psychometrically sound and defensible certification and recertification process. The Specialty Council will with work with BPS Psychometric and Testing Services staff in fulfilling this charge.

Procedures were designed to ensure the validity of the specialty certification examination. A group consensus
process was used to develop the initial structure and definitions for a role delineation study. The Specialty Council defined the major areas of responsibility (domains) of the Transplant Pharmacist, the tasks associated with those domains, and the knowledge base necessary to appropriately perform those tasks. Furthermore, individuals recommended by the Specialty Council as being representative of the specialty were interviewed about the tasks and knowledge base critical to their practice. The data from these critical incident interviews were used to confirm and/or modify the content of the Specialty Council’s initial role delineation. The domains, tasks, and knowledge areas were also validated through a contrasting groups survey between pharmacists who work in the specialized area of Solid Organ Transplantation Pharmacy and those in general pharmacy practice. Analysis of the results of this survey determined the scope and depth of the material to be tested on the specialty certification examination.

Additional information on BPS and the Solid Organ Transplantation Pharmacy is at www.bpsweb.org.

VII. APPENDICES

A. Executive Summary Chart Format

B. Domains of Solid Organ Transplantation Pharmacy Practice. Prospective professional development providers should refer to the current complete Content Outline for the Solid Organ Transplantation Pharmacy, published at www.bpsweb.org.

C. Examination Item Procedure

D. Examination Item Construction Form

E. 2020 Membership Rosters for BPS Board of Directors and Solid Organ Transplantation Pharmacy Specialty Council
## Executive Summary Chart Format (not to exceed two pages)

<table>
<thead>
<tr>
<th>Name of proposing organization and professional development program</th>
<th><img src="#" alt="Table" /></th>
</tr>
</thead>
<tbody>
<tr>
<td>Highlight and briefly discuss three strengths of the proposal.</td>
<td><img src="#" alt="Table" /></td>
</tr>
<tr>
<td>Provide the minimum number of continuing education hours to be offered by each recertification activity per year from 2021 through 2022. Include the type/format of the offering (i.e., live, home study) and the estimated cost to the certificant.</td>
<td><img src="#" alt="Table" /></td>
</tr>
<tr>
<td>Number and total years of relevant experience of qualified experts, peer reviewers, project director, professional and nonprofessional staff, and other volunteers</td>
<td><img src="#" alt="Table" /></td>
</tr>
<tr>
<td>Names of three related projects with brief descriptions (maximum of 1 to 2 sentences)</td>
<td><img src="#" alt="Table" /></td>
</tr>
<tr>
<td>Names of collaborating organizations and/or subcontractors (if applicable)</td>
<td><img src="#" alt="Table" /></td>
</tr>
<tr>
<td>Optional List innovative or pilot activities.</td>
<td><img src="#" alt="Table" /></td>
</tr>
</tbody>
</table>
APPENDIX B

Domains of Solid Organ Transplantation Pharmacy Practice

Refer to the current Content Outline for Solid Organ Transplantation Pharmacy, posted at www.bpsweb.org.
APPENDIX C

Examination Item Procedure

BPS requests that providers follow an item development procedure that is consistent with a peer-reviewed, evidence-based, defensible process when preparing multiple-choice items to be used in evaluation. For example:

- All items should be written by subject-matter experts in the practice field.
- Each subject-matter expert should receive guidance in writing, reviewing, and editing items.
- Each item should be reviewed and validated by multiple subject-matter experts.
- Each item should have a verifiable published reference.
- Each item should be linked to the content being tested.
- The stem of each item should be meaningful and present a definite single problem/question.
- The stem of each item should be free of irrelevant information and should not “teach” the candidate.
- Each item should have one correct answer. All other options should be plausible but incorrect based on the problem/question presented in the stem.
## Examination Item Construction Form

<table>
<thead>
<tr>
<th>Date Written</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Classification</td>
<td>To content outline</td>
</tr>
<tr>
<td>Primary Category</td>
<td>To other categories as decided by SMEs</td>
</tr>
<tr>
<td>Secondary Category</td>
<td></td>
</tr>
<tr>
<td>Tertiary category</td>
<td></td>
</tr>
<tr>
<td>Key</td>
<td>Indicate the correct answer from options below</td>
</tr>
<tr>
<td>Cognitive level</td>
<td>Recall, Application, Synthesis</td>
</tr>
<tr>
<td>Question stem</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Answer Options</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td></td>
</tr>
<tr>
<td>B.</td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td></td>
</tr>
<tr>
<td>D.</td>
<td></td>
</tr>
</tbody>
</table>

### Reference

### Item Review Checklist:
- Is the item relevant to current practice? Does it fit the test outline and item writing assignments?
- Does the stem pose a single, complete, and well-focused problem?
- Is the problem one that does not require the examinee to express their own value system or personal preference?
- Is the language in the stem concise and unambiguous?
- Have extraneous cues to the correct answer been eliminated from the stem and response options?
- Are all the words spelled out rather than abbreviated and are units designated for measures?
- Does the stem include all necessary information and no extraneous information?
- Does the item have four different options?
- Are the response options grammatically and logically consistent with the stem?
- Are the options homogenous in content, phrasing and length?
- Is the keyed response one that experts clearly recognize as the response that is either correct or the best of those presented?
- Are the distractors plausible, but clearly not defensible as correct?
- Is the reference indicated correct? Are the pages cited correctly?
### Item Writing Guidelines

#### General Item Writing Rules

1. Write questions from your real life practice
2. Aim at a specific topic or concept
3. Reread and rewrite item (as necessary) before sending items in
4. Avoid trick, insignificant or esoteric topics
5. Avoid indefinite or absolute terms: often, sometimes, never, all
6. Reference all items
7. Avoid topics that can be appropriately managed in a variety of ways
8. Avoid regional topics
9. Avoid "Hot Topics"

**Avoid using the following words/phrases in your questions that require a judgment on the part of the test taker to determine the exact meaning.**

- Often
- Usually
- Occasionally
- May
- About
- May be associated with

#### Constructing a stem

1. Phrase all stems as a direct question.
2. Provide sufficient information in the stem to make the question clear and unambiguous. In nearly all cases, the question must be able to stand alone, and be answerable without the response options.
3. The stem should not include extraneous information. Extraneous information is liable to confuse candidates who otherwise would have determined the correct answer.
4. Avoid using negative stems—those containing words such as NOT, LEAST, WORST, EXCEPT, etc. If it is absolutely necessary to use a negative stem, highlight the negative word, (e.g., capitalize, underline, or put in bold type so that it stands out for the student).
5. If there is not one universally agreed upon answer to the question, it is best to include “of the following” or some similar qualifying phrase in the stem.
6. Avoid questions for which a wrong method yields the correct answer

#### Item Template Ideas

Constructing the stem: Clinical Vignettes can include some or all of the following:

1. Age, Gender (i.e. patient description)
2. Site of care
3. Presenting complaint
4. Duration
5. Patient history
6. Family history
7. Physical exam findings
8. Laboratory findings
9. Diagnostic studies
10. Initial treatment
11. Subsequent findings

#### Sample Clinical Vignettes

1. A (patient description) has a (type of injury and location).
2. A (patient description) has (signs and symptoms).
3. A (patient description) has (signs, symptoms or specific disease) and is being treated with (drug or drug class).
<table>
<thead>
<tr>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Write multiple-choice items with four response options</td>
</tr>
<tr>
<td>2. Make sure that one of the four response options is the key and the only correct answer or best answer.</td>
</tr>
<tr>
<td>3. Make sure that the four response options are independent. For example, response options should not represent subsets of other options. Also, do not include pairs of response options that constitute an inclusive set of circumstances (e.g., day or night, does or does not).</td>
</tr>
<tr>
<td>4. Make sure that the grammatical structure of all response options “fit” the stem. Inconsistent grammar can provide clues to the key or eliminate incorrect response options. Avoid writing items where the options complete a sentence begun in the stem, because these can cause problems with translation.</td>
</tr>
<tr>
<td>5. Make sure all (or sets) of the response options are parallel in length, level of complexity, and grammatical structure. Avoid the tendency to include more details or qualifications in the correct response, thus making it stand out.</td>
</tr>
<tr>
<td>6. Do not use words or phrases in the stem that are repeated in one of the response options and, therefore, act as a clue to the correct response.</td>
</tr>
<tr>
<td>7. Do NOT use “none of these” and “all of these” as response options.</td>
</tr>
<tr>
<td>8. Arrange the response options in a logical order if this makes sense and saves the student time in reading the options (e.g., years in chronological order, numbers from least to greatest).</td>
</tr>
<tr>
<td>9. Avoid writing items that can be worked backwards from the response options to find the correct answer (e.g., solving for x in an equation).</td>
</tr>
</tbody>
</table>

**To summarize, Response options should**

1. Parallel the information asked for in the stem, (e.g. if the stem asks for symptoms, all response options should be symptoms) |
2. Be grammatically consistent with the stem |
3. Be as short as possible |
4. Be approximately the same length, (in particular, the correct answer should not typically be longer than the distractors) |

**Plausibility of Distracters**

1. Use plausible distracters (incorrect response options) that are based on likely student errors or misconceptions. This reduces the likelihood of students arriving at the correct response by eliminating other choices and, equally important, may allow identification of widespread student misunderstandings or tendencies that could lead to curricular or instructional improvements. |
2. If there are no plausible errors or misconceptions, still make the options “reasonable.” For example, they should be from the same area of content. However, avoid the use of “trick” distracters. |

**To summarize, distractors should**

- Have real meaning |
- Be plausible but wrong |
<table>
<thead>
<tr>
<th><strong>Distractors should never</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Be made up &quot;nonsense terms&quot;</td>
</tr>
<tr>
<td>• Intentionally try to &quot;trick&quot; the test taker</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Bias/ Sensitivity/ Fairness</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• All candidates should be treated equally and fairly, regardless of different personal characteristics not relevant to the test</td>
</tr>
<tr>
<td>• All items should be reviewed for references to race, gender, religion, ethnicity, etc. and these parameters should be used only when relevant to the item</td>
</tr>
<tr>
<td>• Avoid the use of stereotypes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Language</strong></th>
<th><strong>Style guides, units, level of language</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>References</strong></td>
<td></td>
</tr>
<tr>
<td>• Is the Reference Current?</td>
<td></td>
</tr>
<tr>
<td>• Is the Reference Accessible?</td>
<td></td>
</tr>
<tr>
<td>• Is the Reference Source Peer Reviewed?</td>
<td></td>
</tr>
</tbody>
</table>

**Good internet references**

- Journals On–Line
- Organization Sites
- Other
  - E-medicine
  - OBGYN.net
  - Medscape
  - Hospital Sites
  - US Government Sites
APPENDIX E

MEMBERSHIP ROSTERS for 2020

BOARD OF PHARMACY SPECIALTIES

William Ellis, RPh, MS (non-voting member)
Karen Gunning, PharmD, BCPS, BCACP (Chair)
Cyrine-Eliana Haidar, PharmD, BCPS, BCOP
Marianne F. Ivey, PharmD, MPH
Peter Koval, PharmD, BCPS (Immediate Past Chair)
Stefan Kowalski, BPharm, MAppSci, BCGP
Terry McInnis, MD
Jerry McKee, PharmD, BCPP
Marie E. Michnic, DrPH
Rebecca Miller, MS
Ruth E. Nemire, PharmD, EdD
Hal E. Richards, PharmD, BCNSP (Chair-Elect)
Gary C. Yee, PharmD

SOLID ORGAN TRANSPLANTATION PHARMACY SPECIALTY COUNCIL

Stephanie Anders, PharmD, BCPS
Emily Benefield, PharmD, BCPS, BCPPS
Barrett Crowther, PharmD, BCPS (Vice Chair)
Christopher Ensor, PharmD, BCPS (Chair)
Matt Harris, PharmD, MHS, BCPS
Heather Johnson, PharmD BCPS
Laura Myhre, PharmD, BCPS
Nicole Pilch, PharmD, MSCR, BCPS
Demetra Tsapepas, PharmD, BCPS