PUBLICATION GUIDELINES:
MICHIGAN PHARMACIST <u>CONTINUING EDUCATION</u> ARTICLES

Michigan Pharmacist welcomes continuing education (CE) articles from authors on subjects of general interest to pharmacists and pharmacy technicians. Submissions are subject to review at the editor's discretion and articles will be edited in accordance with the journal's approved style and format. Articles are received with the understanding that they have not been published elsewhere and are not under simultaneous consideration by another publication. They must be geared to the level of the practicing pharmacist, yet be able to be understood by a certified pharmacy technician (CPhT). For more information on subject matters eligible for CPhT CE, please see <u>www.PTCB.org/renew/continuing-education</u>.

JOURNAL FORMATTING REQUIREMENTS:
The following formatting is required for articles to be printed in *Michigan Pharmacist*:
- Byline – please include your full name and any applicable credentials. If multiple authors contributed to the piece, please list them in the order you would like them to be in the publication.
- File format – Microsoft Word preferred
- Line spacing – Single spaced
- Font – 12 pt., Arial font
- Margins – 1" all around
- Photos – If you have any photos that accompany your article, please be sure to submit high-resolution .jpg, .png, .tiff or .gif files. In addition, please include captions and identify any individuals and/or actions in the photo(s).
- Copyright permission – If you have anything in your article such as photo(s), tables/charts or other graphics that required permission for use/publication, you must submit the appropriate copyright documentation to MPA with your materials.
- References – A complete list of references must be included with your article. References must be cited in numeric order within the text (superscript number after the appropriate sentence[s]) and a corresponding numerical listing of references must be included at the end of the article.
- Other Enhancements – You're encouraged to include graphs, tables, charts, etc. in the article. If these are graphics, please use the guidelines for photos above and submit them as separate, high-resolution files with your article. In addition, please note the copyright permission information above.

DEADLINES AND SUBMISSION
The following deadlines must be met in order for an article to be included in the journal:
1. Article deadlines authors are as follows:
    - January – second Monday of November (prior year)
    - April – second Monday of February
    - July – second Monday of May
    - October – second Monday of August

CE ARTICLE PREPARATION AND PROCESS
The following process is recommended for completing a CE article:
- Determine topic and conduct an educational needs assessment to identify gaps in knowledge. The gaps in knowledge would justify the reason/need for the article and the article's learning objectives will need to be based on the gaps in knowledge. Complete a Faculty Agreement (see

page 6) to document the educational needs assessment, gaps and learning objectives.

- Identify two reviewers who have practice experience in the area(s) covered in your article. MPA is able to assist with this process. Contact the potential reviewers to ensure that they are willing to review your article and provide feedback. Generally, they are given two weeks to complete the review. A reviewer form must be completed by each reviewer (provided to author[s] as a separate document).
- Write draft article. Articles must be in an electronic format, typed in 12-point Arial font, single spaced, with indented paragraphs. Be sure to include the CE article title, full name(s) of the author(s), degree(s) earned/credentials, and position/employer.
- Once the draft article is completed, e-mail it to the two reviewers along with a copy of the reviewer form. Be sure to copy Alisha@MichiganPharmacists.org on your e-mails with the reviewers, as the Association must document these communications per Accreditation Council for Pharmacy Education requirements. It is recommended that the reviewers simply use Track Changes and comments in Microsoft Word to provide feedback.
- Reviewers are generally given two weeks to complete their assignment. After they send their comments and reviewer form back to you, go through the article and implement their suggested changes, as needed.
- When the article is completed, the following documents must be e-mailed to MPA by the deadline:
  - Final copy of the article (with reviewer comments implemented)
  - Documentation from the two reviewers (completed reviewer forms and copies of the article that include reviewer comments)
  - Draft copy of the article that was shared with reviewers
  - Completed Transferal of Rights form (see page 4)
  - Completed Faculty Agreement form (see page 5)

CE ARTICLE REQUIREMENTS

The article should be a minimum of 3,000 words. This count is exclusive of any tables, graphs or graphics, learning objectives, references and self-assessment questions.

CE Credit Hour - Word Count Guide	
1.0 CE Credit Hour	3,000 words
1.5 CE Credit Hours	4,500 words
2.0 CE Credit Hours	6,000 words

Faculty Agreement and Educational Needs Assessment

Author(s) must complete a faculty agreement, which documents author information, educational needs and gaps in knowledge (the reason/need for the article), learning objectives and disclosures.

Learning Objectives

A minimum of three and maximum of five clearly-defined learning objectives must accompany each article so pharmacists and pharmacy technicians know what performance level they are expected to achieve. Programs that benefit pharmacists and pharmacy technicians must have specific and separate learning objectives for each audience. Please see the Faculty Agreement for complete details on and assistance with developing learning objectives.

Self-assessment Questions

To evaluate the level of competency attained, self-assessment questions must accompany each CE article. Each question should be in the multiple choice format and include **only four possible answer choices** (unless true/false, in which case, only two choices are needed). Posttest questions should be directly related to the learning objectives. See below for the required number of questions, based on how long the activity is. Each question should have only one correct answer. Self-assessment questions

are scored by MPA, and if a passing score is achieved, the registrant is awarded CE credit through CPE Monitor. Authors should also provide feedback after each question explaining why the chosen answer is correct.

Hours Per Activity	Required Number of Q&A
1 to 1.75	4
2 to 3.75	8
4 to 5.75	12
6 to 7.75	16
8 to 9.75	20

Example Posttest Question with Correct Answer and Feedback

1. To have a positive CAM-ICU, patients must have all four delirium characteristics: acute onset and fluctuating course, inattention, disorganized thinking and altered level of consciousness.
   a. True
   b. False

   Feedback: Answer B is the most appropriate response because patients must have three out of four characteristics. To have a positive CAM-ICU screen, patients must have acute onset and fluctuating course, evidence of inattention and either signs of disorganized thinking OR altered level of consciousness.

Active Learning
In addition, authors must provide two to three "stop and reflect" sections that encourage active learning of the activity participant. These sections should be in the form of a question and encompass real-life scenarios that relate to the article topic. The stop and reflect sections can be dispersed throughout the article to encourage readers to stop and actively reflect on the information they are learning. The author should also provide feedback for each section that explains the appropriate course of action or response to the situation. Below is an example.

> **STOP AND REFLECT**
>
> Prior to her mastectomy, LL's six of ten pain was well-controlled on a relatively stable opioid regimen. Six months later, LL reports persistent pain that bothers her multiple times per day despite taking a daily opioid regimen that is nearly double what she was taking prior to the surgery. What pain modifiers or changes in pain quality might be contributing to her poor pain control now? What clarifying questions could you ask?
>
> **Feedback**
> Psychological distress, hyperalgesia and/or mastectomy-associated neuropathic pain may contribute to her present status. Inquiring about psychiatric comorbidities, analgesic history and pain quality may clarify the presence of these factors.

Curriculum Vitae or Resume
Author must submit a current curriculum vitae or professional resume to validate knowledge on the subject matter.

PHOTOS, ILLUSTRATIONS AND GRAPHS
Drawings, photographs, charts, tabulations, graphs, etc., often increase the reader's ability to grasp and/or conceptualize an idea. These are highly encouraged to be included with the CE article. Any graphics or tables should be sent electronically, along with the article. Any photos or illustrations must be attached separately. Photos, illustrations and graphics must have a resolution of at least 300 dots per inch (dpi) to be of quality for publication. Generally, these files are 500 KB or greater in size. Photos,

illustrations and graphics should be submitted in .jpg or .png file format and the file name should reference the figure number in the article text.

REFERENCES
References should be cited consecutively in the text and identified by superscript numbers. At the conclusion of the article, references should be listed numerically in the order in which they are cited. All references should be submitted in American Medical Association (AMA) style guidelines.

PERIODICALS

Pattern:
Lastname First Initial, Lastname First Initial, et al. Title as it appears in document. *Abbreviated journal title*. Year;Volume(Issue):start page-end page. URL (if found online). Access date./DOI if from database

Example:
Navarro P, Chambers I, Karwacki-Neisius V, et al. Molecular coupling of Xist regulation and pluripotency. *Science*. 2008;321(5896):1693-1695.

BOOKS

Chapter/Page in Book – Pattern:
Lastname First Initial (author of selection, not book). Title of chapter as it appears in text. In: Lastname First Initial (Author/Editor). Title of Book. City, State: Publisher; Year: Start page – end page.

Example:
Coleman E. The new organic grower. In: Kruger A, ed. Gardening When It Counts. Westport, CT: Greenwood; 1995: 219-223.

Entire Book – Pattern:
Lastname First Initial. Title of Book. City, State. Publisher; Year.

Example:
Berger S. Allotment gardening: An organic guide for beginners. Devon, England. Green Books, Ltd.; 2005.

WEBSITE

Pattern:
Author (Creator/Person). Name of Webpage. *Name of Entire Website*. URL. Published date. Update date (if listed). Accessed date.

Example:
Mayo Clinic Staff. Organic foods: Are they safer? More nutritious? *The Mayo Clinic*. http://www.mayoclinic.com/health/organic-food/NU00255. Published December 20, 2010. Accessed March 13, 2008.

For more information about American Medical Association style guidelines, visit www.AMAManualofStyle.com.

COPYRIGHT

All material in *Michigan Pharmacist* journal is protected by copyright and may not be published elsewhere without written permission of Michigan Pharmacists Association. Under the terms of the Copyright Revision Act of 1976 (effective Jan. 1, 1978, Public Law 94-553), the rights of the author(s) must be transferred to the publisher in order to provide for the widest possible dissemination of professional and scientific literature. Accordingly, transmittal letters must accompany ALL manuscripts submitted for publication. **Please sign and return the attached Transferal of Rights document with your article.**

SUBMITTING YOUR ARTICLE

Articles and all related documents/files should be sent to Alisha@MichiganPharmacists.org.

TRANSFERAL OF RIGHTS

The following statement should be signed by each author:

In consideration of MICHIGAN PHARMACIST taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns or otherwise conveys ALL ownership rights in the submission and ALL copyright ownership to Michigan Pharmacists Association for it use in print media, electronic form, broadcast or re-broadcast, or any other type of publication. In the event that such work is not published in the MICHIGAN PHARMACIST, all said rights shall be released.

_____   _____
Author's Signature   Author's Signature

_____   _____
Author's Signature   Author's Signature

Exclusive Publication Statement

Please sign the following statement:

I certify that none of the material in this manuscript has been previously published and none of this material is under consideration, or has been accepted, for publication elsewhere. This includes journal articles, letters to the editor, symposia, proceedings, transactions, books, articles published by invitation and preliminary publications of any kind except an abstract of 400 words or less.

_____
Signature of Primary Author

If the above item has not been signed, a letter of explanation to the editor must be included with the manuscript.

FACULTY AGREEMENT

Please complete this faculty agreement and send it to the journal managing editor, along with other required information outlined in the continuing education article guidelines.

CONTACT INFORMATION
Name, credentials, title and organization will appear in the article byline. Contact information provided is for MPA use only.

First Name: _____   Middle Initial: _____   Last Name: _____

☐ R.Ph. ☐ Pharm.D. ☐ B.S. Pharm. ☐ CPhT ☐ Other _____

Title: _____

Organization: _____

Mailing Address: _____   City/State/Zip _____
☐ Work Address ☐ Home Address

E-mail Address: _____   Phone Number: _____

ACTIVITY DETAILS
Please provide details of the activity.

Activity Title: _____

EDUCATIONAL NEEDS ASSESSMENT AND GAPS IN KNOWLEDGE
Faculty/authors should identify the problem or clarify the need (gaps in knowledge), the current state of pharmacy practice and the desired state of pharmacy practice. This should be evidence-based facts, rather than assumptions, and should be used to formulate what should be learned in order to move the learners from their current state of practice to the desired state and assist in developing learning objectives. References and citations should be provided where appropriate.

Develop and Clarify the Need
What is the problem (potential or actual) that needs to be addressed? Or, what new process or procedure (current or future), recent change or expected changes are happening that will affect this group?

_____

Current State of Practice
What is the audience doing now that could or has lead to this problem based on facts, rather than assumptions? Provide references or citations. Or, where is the audience currently in this skill, training, process or procedural aspect?

_____

Desired State of Practice
What should or could the audience be doing instead to solve or prevent this problem? Or, what information, skill or technique will the audience need to attain in order to implement this new process or procedure?

_____

LEARNING OBJECTIVES

Michigan Pharmacists Association (MPA) will attempt to accredit your program for pharmacists and pharmacy technicians either by following the ACPE accreditation standards that meet pharmacist requirements or by PTCE continuing education standards that meet the certification guidelines for pharmacy technicians. Programs that benefit pharmacists and pharmacy technicians must have specific and separate learning objectives for each audience. If your pharmacy continuing education activity (PCE) benefits only pharmacists, only pharmacy technicians or both, please complete the appropriate learning objective section below. See pages 9-10 for guidelines on how to develop specific and measurable learning objectives. MPA must approve learning objectives. The majority of the objectives should be structured to meet identified educational gaps in knowledge that will mover learners to a desired state of practice.

This PCE activity will include discussion of off-label use. ☐ Yes ☐ No ☐ Not Sure
Audience(s) that would benefit from this activity: ☐ Pharmacists ☐ Pharmacy Technicians ☐ Student Pharmacists

Pharmacist Learning Objectives – *A minimum of three objectives is required.*

At the end of this activity, participants should be able to:

1.
2.
3.
4.

Pharmacy Technician Learning Objectives – *A minimum of three objectives is required.*

At the end of this activity, participants should be able to:

1.
2.
3.
4.

ACTIVITY TYPE

Please indicate the appropriate activity type. Please note the learning assessment and feedback requirements and additional information needed based on the activity type.

☐ Knowledge-based Activity – These activities primarily transmit knowledge (i.e., facts). The facts must be based on evidence as accepted in the literature by the health care professions.

    Learning Assessment – Each activity in this category must include a multiple choice posttest.

    Assessment Feedback – The organization hosting the continuing education activity or Michigan Pharmacists Association will provide participants with answers to posttest questions, along with an explanation of why the correct answers are the most appropriate.

☐ Application-based Activity – These activities are primarily constructed to apply the information learned in the time frame allotted. The information must be based on evidence as accepted in the literature by the health care professions.

    Learning Assessment – Each activity in this category must include case studies structured to address application of the principles learned, or another hands-on approach.

    Assessment Feedback – Feedback should be provided by faculty during delivery of the activity and include the correct evaluation of case studies and rationale for correct responses.

DISCLOSURE

Accredited activities shall exhibit fair content balance, providing the audience with information of different perspectives from which to develop an informed professional opinion. Anyone who is in a position to control the content of an education activity must disclose all relevant financial relationships with any commercial interest and/or conflicts of interest. In addition, should it be determined that a conflict of interest exist as a result of financial compensation or other relationships you may have that has a potential to influence content, this will need to be resolved prior to the activity. This information is necessary in order for us to be able to move to the next steps in planning this activity. If you refuse to disclose relevant financial and other influential relationships, you will be disqualified from being a part of the planning and implementation of this activity.

First, list the names of proprietary entities producing health care goods or services, consumed by, or used on patients, with the exemption of nonprofit or government organizations and non-health care-related companies with which you have, or have had, a relevant financial relationship within the past 12 months. Second, describe what you received (ex: salary, honorarium, etc.) You do not need to reveal how much you received. Third, describe your role.

	Nature of Relevant Financial Relationship (Include all that apply.)	
Commercial Interest and Influential Relationships	**What I Received**	**My Role**
Example: Company "X" or name or person other than author controlling content	*Honorarium*	*Speaker*

☐ I do not have any relevant financial relationship with any commercial interests, nor do I have a relationship with anyone who influenced content of this activity.

☐ My spouse/partner does not have any relevant financial relationship with any commercial interests, nor does he/she have a relationship with anyone who influenced content of this activity.

What was received: Salary, royalty, intellectual property rights, consulting fee, honoraria, ownership interest (e.g., stocks, stock options or other ownership interest, excluding diversified mutual funds), or other financial benefit.

My role(s): Employment, management position, independent contractor (including contracted research), consulting, speaking and teaching, membership on advisory Committees or review panels, Board membership and other activities.

I, hereby, confirm all information as set forth above, as true and correct, and agree to deliver the activity as I have stated above in both a professional and educational matter. I agree to all procedures outlined in the publication guidelines, transferral of rights and faculty agreement. Changes or alterations to this agreement are not valid unless initialed by both parties.

I further warrant and represent that this activity is my own original work, that I have the authority to enter into this agreement and that I am the sole copyright holder, or that I have obtained all necessary permissions or licenses from any persons or organizations whose material is included or used in my presentation.

Faculty Signature	Print Name	Date

☐ This is an electronic signature.

DEADLINES

2.   Article deadlines for volunteer journal authors are as follows:
- o   January – second Monday of November (prior year)
- o   April – second Monday of February
- o   July – second Monday of May
- o   October – second Monday of August

3.   When the article is completed, the following documents must be e-mailed to MPA by the deadline:
- o   Final copy of the article (with reviewer comments implemented)
- o   Documentation from the two reviewers (completed reviewer forms and copies of the article that include reviewer comments)
- o   Draft copy of the article that was shared with reviewers
- o   Completed Faculty Agreement form (included in this document)
- o   Completed Transfer of Rights form (included in this document)
- o   Curriculum vitae or resume

Return Faculty Agreement to:

Alisha@MichiganPharmacists.org

GUIDE TO ESTABLISHING
EDUCATIONAL GOALS AND OBJECTIVES

Objectives for each PCE activity must define what the pharmacist and/or pharmacy technician should be able to do at the completion of each activity. The following is a guide to developing effective learning objectives and goals.

Function of Objectives
The development of objectives serves as the guide in the process of planning, presenting and evaluating instruction.

There is a major difference between goals and objectives. Goals of a course are stated in general terms so that the pharmacy professional can be quickly informed about the nature of the course. Sample terms in goals include: "Know about … , To understand … , Become aware … , and Develop appreciation for … "

All of these phrases are found in goal or purpose statements.

Objectives are used to attain the stated goal. They assist the presenter and the pharmacy professional in deciding specifically what is to be learned. When participants are informed of the objectives, it will prepare them for what they are expected to do with the information. Typical activities found in objectives include: "to write, to list, to analyze, to solve and to discuss."

The most difficult—and the most important—part of constructing an objective is the selection of an appropriate action verb. It should clearly express what the pharmacy professional should be able to do with the subject content—recognize, explain, solve, assess and so on.

These verbs should be avoided in objective statements since they are open to interpretation:

Appreciate	Have faith in
Behave	Know
Believe	Learn
Be aware of	Perceive
Enjoy	Realize
Explore	Understand
Grasp significance of	

The following charts were prepared by ACPE to assist you in developing learning objectives, based on your activity's type. Objectives for knowledge-type activities should only contain verbs from the comprehension and knowledge categories; whereas, objectives for application- and practice-type activities can include verbs from the evaluation, synthesis, analysis, application, comprehension and knowledge categories.

Suggested Verbs for CPE Activities by Domain
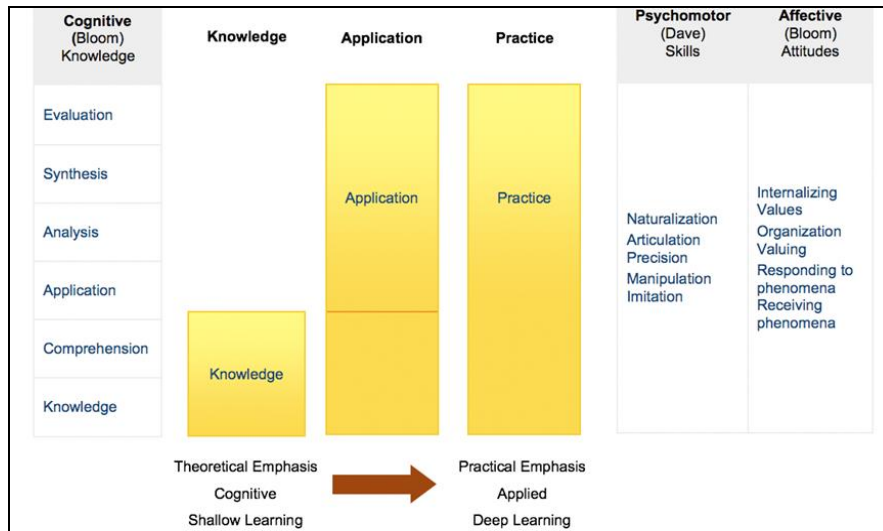
Cognitive Domain (Bloom)	
Evaluation	To appraise, argue, assess, attach, choose, compare, defend, estimate, judge, predict, rate, core, select, support, value, evaluate.
Synthesis	To arrange, assemble, collect, compose, construct, create, design, develop, formulate, manage, organize, plan, prepare, propose, set up, write.
Analysis	To analyze, appraise, calculate, categorize, compare, contrast, criticize, differentiate, discriminate, distinguish, examine, experiment, investigate, question, research, test.
Application	To apply, choose, demonstrate, dramatize, employ, illustrate, interpret, operate, practice, schedule, sketch, solve, use, write.
Comprehension	To classify, describe, discuss, explain, express, identify, indicate, locate, outline, recognize, report, restate, review, select, translate.
Knowledge	To arrange, define, duplicate, label, list, memorize, name, order, recognize, relate, recall, repeat, reproduce, state.

Psychomotor Domain[1] (Dave)	
Naturalization	To design, specify, manage, invent, project-manage.
Articulation	To construct, solve, combine, coordinate, integrate, adapt, develop, formulate, modify, master, improve, teach.
Precision	To demonstrate, complete, show, perfect, calibrate, control, practice.
Manipulation	To re-create, build, perform, execute, implement.
Imitation	To copy, follow, replicate, repeat, adhere, observe, identify, mimic, try, reenact, imitate.

Affective Domain[2] (Bloom)	
Internalizing Values (Characterization)	To act, discriminate, display, influence, listen, modify, perform, practice, propose, qualify, question, revise, serve, solve, verify.
Organization	To adhere, alter, arrange, combine, compare, complete, defend, explain, formulate, generalize, identify, integrate, modify, order, organize, prepare, relate, synthesize.
Valuing	To complete, demonstrate, differentiate, explain, follow, form, initiate, invite, join, justify, propose, read, report, select, share, study, work.
Responding to Phenomena	To answer, assist, aid, comply, conform, discuss, greet, help, label, perform, practice, present, read, recite, report, select, tell, write.
Receiving Phenomena	To ask, choose, describe, follow, give, hold, identify, locate, name, points to, select, sit, erect, reply, use.

---

[1] Dave, R. H. (1975). *Developing and Writing Behavioural Objectives*. (R J Armstrong, ed.) Educational Innovators Press.
[2] Krathwohl, D. R., Bloom, B. S., & Masia, B. B. (1973). *Taxonomy of Educational Objectives, the Classification of Educational Goals. Handbook II: Affective Domain*. New York: David McKay Co., Inc.