

Integrating Medication Therapy Management (MTM) Into the Curricula of Schools and Colleges of Pharmacy

*Recommendations and Strategies from
an American Pharmacists Association
MTM in the Curricula Expert Panel*

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As the U.S. health care system continues to evolve—and as new and emerging care models such as the patient-centered medical home and accountable care organizations models further mature—pharmacists are assuming increased roles and responsibilities in medication therapy management (MTM). These increased roles and responsibilities support the Future Vision of Pharmacy Practice from the Joint Commission of Pharmacy Practitioners, which charges pharmacists as “the health care professionals responsible for providing patient care that ensures optimal medication therapy outcomes” by the year 2015.¹

As 2015 nears, there is an increasing need to ensure a baseline understanding and application of MTM services by student pharmacists in the didactic and experiential curricula. In response to this need, the American Pharmacists Association (APhA) convened an MTM in the Curricula Expert Panel (Expert Panel) of leaders in MTM education from academic institutions across the nation. This panel was charged with developing a series of recommendations and strategies for schools and colleges of pharmacy to consider as they continue to evolve their MTM curricula. The Expert Panel considered the results of an environmental scan of MTM in the curricula conducted via survey in 2011, submissions received in a joint call by APhA and the American Association of Colleges of Pharmacy for successful practices

in MTM curricula, and the combined expertise of members of the panel as they deliberated on the development of their recommendations and strategies. The Expert Panel convened virtually in a series of conference calls in November and December 2011 and used a modified Delphi method to identify and prioritize strategies. The Expert Panel reached consensus on the recommendations and strategies that they deduce will be helpful to schools and colleges of pharmacy for the advancement of MTM education in their didactic and experiential curricula. A manuscript providing background on the work of the Expert Panel, methods, and recommendations will be published in mid-2012 as a “Special Feature” in the *Journal of the American Pharmacists Association*.

¹Joint Commission of Pharmacy Practitioners. Vision Statement. 2004. Available at: <http://www.accp.com/docs/positions/misc/JCPPVision-Statement.pdf>.

MTM in the Curricula Expert Panel Recommendations and Strategies

1. Incorporation of MTM in the curricula of pharmacy schools nationwide should include buy-in from key faculty, staff, and other stakeholders who are willing to work together to contribute to the development and implementation of an effective education and training plan for MTM.

Strategies:

- Adopt a profession-wide systematic standardized approach to teaching MTM regarding both the patient care process based on the pharmaceutical care principles and the MTM Core Elements Service Model, the foundational service delivery model. Education on these concepts should be incorporated throughout the didactic and experiential curriculum.
- Create a curricular plan to incorporate, develop, educate, and train student pharmacists on the MTM patient care process and service delivery throughout the curriculum.
- Introduce the concepts associated with MTM gradually, ideally beginning in the first semester and then being incorporated across the professional curriculum.
- Identify faculty at the school or college with current practice experience in MTM, including those in diverse practice settings that can actively contribute to curricular integration.
- Identify themes that occur throughout the curriculum ensuring all faculty, staff, and stakeholders can contribute and understand their roles in MTM education and training.
- Review national guidelines, laws, and regulations—and stay current with literature—that impact MTM practice while developing and/or assessing MTM in the curriculum.
- Utilize Accreditation Council for Pharmacy Education guidelines to identify specific competencies that support MTM incorporation into the curriculum (e.g., awareness, initial immersion, team approach, introductory pharmacy practice experience [IPPE], therapeutics, advanced pharmacy practice experience [APPE]).

2. MTM is a concept that should be introduced and described early in the curriculum.

Strategies:

- Incorporate a segment on “Becoming a Pharmacist” at the beginning of professional education (including definitions and context) that includes the pharmacist’s role in the provision of MTM.
- Have student pharmacists observe licensed pharmacists providing care to patients (through video and/or live observation).
- Have student pharmacists work with standardized patients early in the curriculum.
- Provide interprofessional relationship training to student pharmacists. This training should include the roles of health care professionals and focus on effective communication strategies with other health care professionals.
- Introduce and provide training to student pharmacists on medication reconciliation and the use of the MTM patient care process and service delivery to effectively provide this service. Ideally this training should occur at an early stage of the didactic curriculum.

3. Student pharmacists should be taught the systematic approach to MTM patient care (as described in Recommendation 1) and be provided with active learning experiences to emphasize and apply the concepts learned.

Strategies:

- Have sufficient faculty in community pharmacy, ambulatory care, managed care, health systems, or other emerging practice areas with expertise and skills in MTM to teach student pharmacists.
- Create cases, simulations, role plays, and virtual exercises to provide experiences in MTM patient care prior to experiential training.
- Ensure students, faculty, and administration are fully versed in state and federal laws and regulations that affect MTM practice.

4. The curriculum should integrate MTM encounters in IPPEs and APPEs directly with MTM didactic coursework to provide student pharmacists timely application of MTM concepts.

Strategies:

- Provide student pharmacists with the opportunity to apply the knowledge and skills they have learned in school at practice sites (alignment, sequence, integration).
- Ensure that as student pharmacists progress in the professional curriculum that their MTM experiences progress from simple knowledge to skill development and finally application of the MTM patient care process. This progression should include lecture components first, then progress to simulated or lab components, followed by training on the MTM patient care process with simulated patients if possible, and culminate with application at practice sites with real patients.
- Use technology to enhance and augment MTM learning experiences (e.g., virtual encounters, simulated encounters).
- Examine ways to support preceptors so the MTM services being provided at practice sites are aligned with knowledge and skills being covered in the didactic curriculum.
- Develop a continuous working relationship with State Boards of Pharmacy and ensure that the State Board regulations permit student pharmacists to perform the activities associated with MTM in order to train them during the early stages of professional development.
- Ensure that MTM training in the curriculum incorporates new and emerging forms of communication vehicles with patients and other health care professionals (e.g., tele-health, social media, kiosks, mobile devices).
- Provide active learning experiences in the MTM patient care and baseline service delivery process including performing comprehensive and targeted medication reviews, providing appropriate follow-up, and working collaboratively with other health care professionals.
- Ensure that the application of the standardized MTM patient care and service delivery process is adequately presented in the didactic curriculum and applied in IPPEs and APPEs.

5. Identify and expose student pharmacists to viable business models for MTM services in diverse practice sites. Familiarity with business models for MTM services should be an essential component of the didactic and experiential curriculum.

Strategies:

- Identify, evaluate, and recruit innovative viable practices that can serve as experiential training sites.
- Organize student pharmacist visits to innovative practice sites (using virtual technology video conferencing/webinars if needed).
- Educate student pharmacists about quality measures, outcomes measurement, and risk-management strategies used to evaluate MTM services.
- Educate student pharmacists about how to determine the needs of the patients within a practice site.
- Educate student pharmacists on how to determine the value (including return on investment) of MTM services and work with preceptors to include a discussion of MTM service value and an understanding of business models for practice (including aspects of billing and documentation of services) in IPPEs and APPEs.
- Educate student pharmacists on how to advocate to key stakeholders (e.g., payers, patients, legislators). Instruction should include information on the knowledge, skills, abilities, and contributions that pharmacists make to the health care team.

6. Actively promote MTM services to key stakeholders and support practice sites in the implementation, development, and provision of MTM.

Strategies:

- Facilitate activities and relationships with key stakeholders that provide an environment to give equal opportunities to all students in accord with internship laws and regulations.
- Educate State Boards about MTM patient care services and incorporation of education and training on these services so the Boards can revise regulations and practice acts (if necessary) to encourage the development of practice sites for learning.
- Work with existing practice sites not fully implementing MTM patient care services to utilize existing tools and resources to advance those practice sites and transform them into viable learning environments.

7. Preceptor education should be adequately addressed to provide quality MTM education and training for student pharmacists.

Strategies:

- Train preceptors in the MTM patient care process in order to provide adequate learning experiences for student pharmacists.
- Provide tools and venues for preceptors to network with other preceptors.
- Provide updated lists of resources and support for preceptors to effectively implement MTM in their practices.
- Provide preceptor development that is in harmony with the curriculum.
- Educate preceptors about the scope, breadth, and depth of MTM in the didactic curriculum.
- Develop partnerships with preceptors, student pharmacists, and faculty to create “MTM communities of learning.”
- Develop partnerships with other schools and colleges to address preceptor development needs.



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