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www.gtmr.org

Acting on the $528B opportunity:
Training to advance CMM in practice
May 14, 2019 | 1 p.m. Eastern
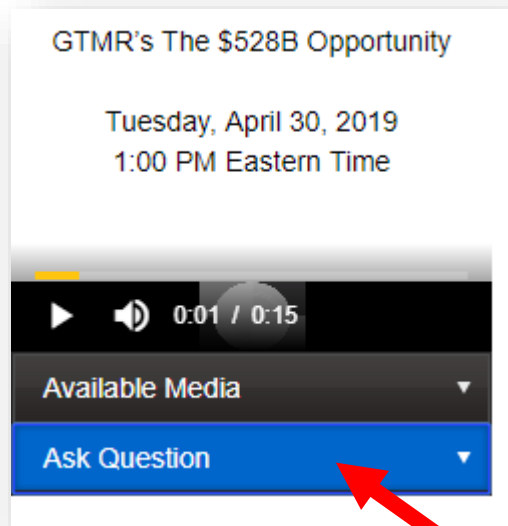
GTMRx Learning Network Webinar

Agenda

- Welcome and Introductions
- Learning Objectives
- Presenters:
  - Terry McInnis, MD, MPH, CPE, FACOEM

    Co-Founder and President, GTMRx Institute and Foundation; and President, Blue Thorn Inc. Healthcare Consulting

  - Jan D. Hirsch, BS Pharm, PhD

    Director and Founding Dean, Pharmaceutical Sciences, University of California, Irvine

  - Question and Answer Session

Audience Notes

- There is no call-in number for today's event.

- Audio is by streaming only. Please use your computer speakers, or you may prefer to use headphones.

- There is a troubleshooting guide in the tab to the left of your screen.

- Please refresh your screen if slides don't appear to advance.

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Submit questions at any time

GTMR's The $528B Opportunity

Tuesday, April 30, 2019
1:00 PM Eastern Time

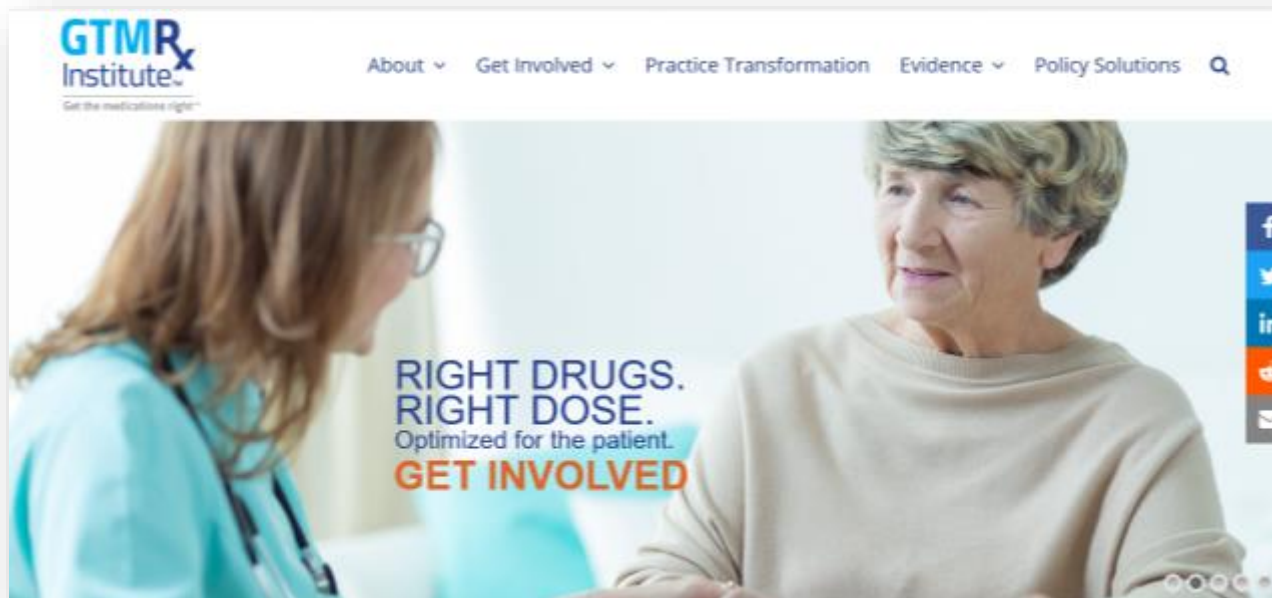▶ 🔊 0:01 / 0:15

Available Media ▼

Ask Question ▼

Click here

How to submit a question

To submit a question, click on Ask Question to display the Ask Question box. Type your question in the Ask Question box and submit. We will answer as many questions as time permits.

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Audience Notes

- A recording of today's session will be posted within one week to our website, www.gtmr.org

Learning Objectives

After the webinar, participants will be able to:

- Demonstrate an understanding of the problem of non-optimized medication use and its financial and clinical impact;
- Discuss the use of CMM as an approach to address non-optimized medication use;
- Describe pharmacist training models designed to prepare professionals for CMM in practice; and
- Outline requirements for CMM to be integrated into clinical care team practice.

Our Presenters

Terry McInnis, MD, MPH, CPE,
FACOEM
President, Co-Founder, GTMRx Institute
President, Blue Thorn Inc.

Jan Hirsch, BS Pharm, PhD
Director and Founding Dean,
Pharmaceutical Sciences
University of California, Irvine

Quick view of GTMRx Institute

A national platform creating a forum for more rapid practice and policy change to save lives and revolutionize the way care is delivered in order to optimize medication use.

Goal: To educate, inform and change the market so research and innovation moves to the practice level, payment models and policy align, and buyers receive value.

Vision: Enhance life by ensuring appropriate and personalized use of medication and gene therapies.

Mission: Bring critical stakeholders together, bound by the urgent need to optimize outcomes and reduce costs by *getting the medications right*.
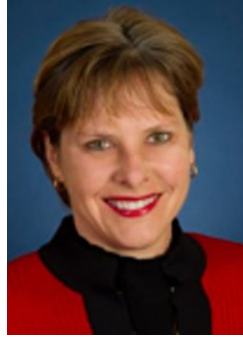
Multi-Stakeholder Coalition

Focus Areas
- **Practice Transformation**
- **Evidence & Innovation**
- **Payment & Policy Solutions**

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Founding and funding board members

Katherine Capps
Co-founder, Exec Director

Terry McInnis, MD, MPH, FACOEM
President & Co-founder

Paul Grundy, MD, MPH, FACOEM, FACPM

Brig. Gen. Allison Hickey (Ret.)

Deborah M. Gage
medecision
Liberating

Ira Klein, MD, MBA, FACP
J&J

Steve Goldberg, MD, MBA
Quest Diagnostics

C. Edwin Webb, Pharm.D., MPH, FCCP
accp
American College of Clinical Pharmacy

Health System, Payer or Foundation

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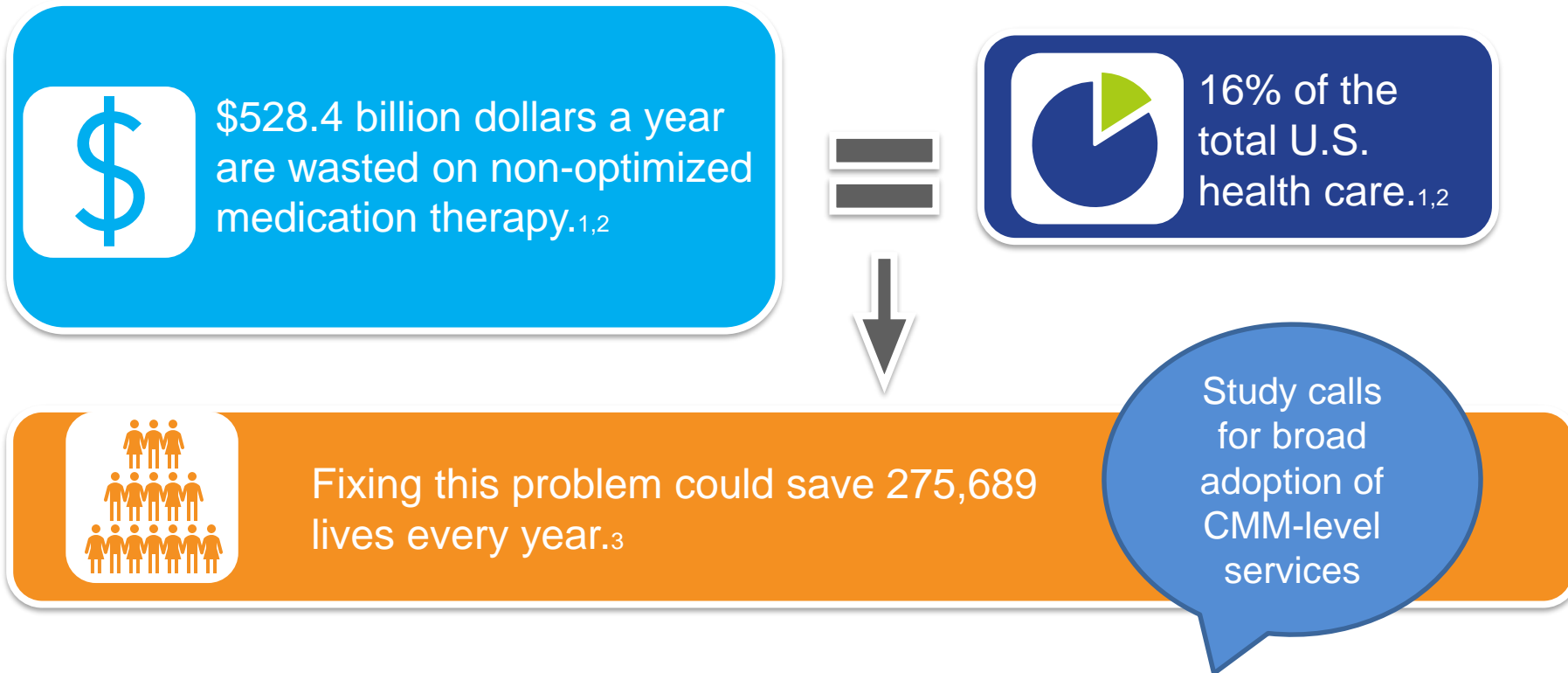# Join a dynamic team of health care leaders!

Executive Members

A sample of our 150+ GTMRx Institute member organizations
(inclusion does not constitute an endorsement of any program, product or organization)

The $528B Unnecessary Spend

$528.4 billion dollars a year are wasted on non-optimized medication therapy.[1,2]

= 16% of the total U.S. health care.[1,2]

Fixing this problem could save 275,689 lives every year.[3]

Study calls for broad adoption of CMM-level services

1. Cutler DM, Everett W. Thinking outside the pillbox: medication adherence as a priority for health care reform. N Engl J Med. 2010;362(17):1553-1555PubMedGoogle ScholarCrossref
2. Watanabe J, et al. Cost of Prescription Drug–Related Morbidity and Mortality. Annals of Pharmacotherapy, March 26, 2018. Accessed 3 April 2018.
http://journals.sagepub.com/eprint/ic2iH2maTdI5zfN5iUay/full
3. Watanabe J, et al. Cost of Prescription Drug–Related Morbidity and Mortality. Annals of Pharmacotherapy, March 26, 2018. Accessed 3 April 2018.
http://journals.sagepub.com/eprint/ic2iH2maTdI5zfN5iUay/full.

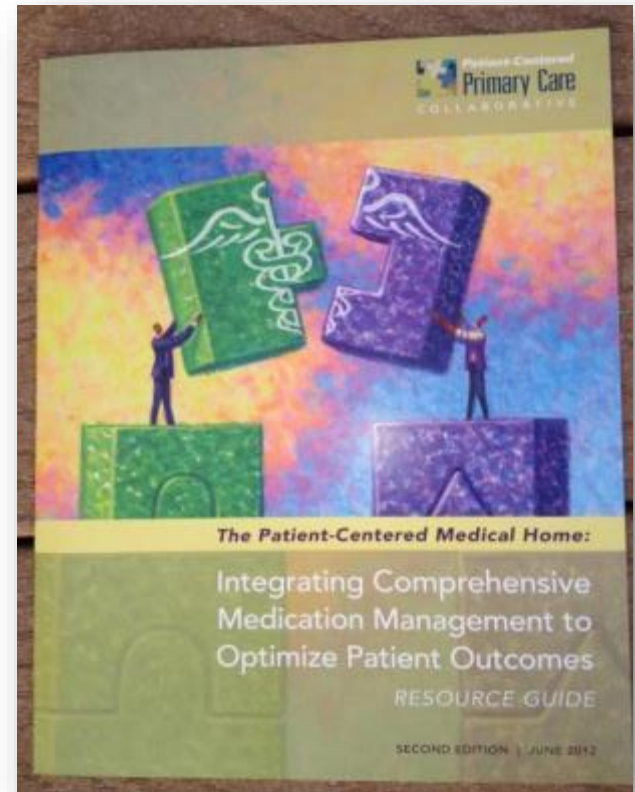GTMRx Institute
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What is Comprehensive Medication Management?

*A systematic approach to medications where **physicians and pharmacists ensure** that medications (whether they are prescription, nonprescription, alternative, traditional, vitamins, or nutritional supplements) are individually assessed to determine that each **medication is appropriate for the patient, effective for the medical condition, safe** given the comorbidities and other medications being taken, and able to be taken by the patient as intended.*[1]

1. McInnis, Terry, et al., editors. The Patient-Centered Medical Home: Integrating Comprehensive Medication Management to Optimize Patient Outcomes. 2nd ed., Patient-Centered Primary Care Collaborative. PCPCC Medication Management Task Force collaborative document.

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The PCPCC Defines Comprehensive Medication Management (CMM)

- Defined how to integrate a systematic approach to medication management into the PCMH/ACO environment

- Drew on the early work in Pharmaceutical Care--Hepler/Strand and others

- 2nd Revision with Appendix A: Guidelines for Practice and Guidelines for Documentation

- Joint Commission of Pharmacy Practitioner's Patient Care Processes, May 2014

PCPCC Resource Guide- Integrating Comprehensive Medication Management to Optimize Patient Outcomes
http://www.pcpcc.org/guide/patient-health-through-medication-management and
https://innovations.ahrq.gov/qualitytools/patient-centered-medical-home-resource-guide-integrating-comprehensive-medication

All 10 steps must be in place for CMM

#1
Identify patients that have not achieved clinical goals of therapy.

#2
Understand the patient's personal medication experience, history, preferences, & beliefs.

#3
Identify actual use patterns of all medications including OTCs, bioactive supplements & prescribed medications.

#4
Assess each medication for appropriateness, effectiveness, safety (including drug interactions) & adherence, focusing on achievement of the clinical goals for each therapy.

#5
Identify all drug-therapy problems.

#6
Develop a care plan addressing recommended steps including therapeutic changes needed to achieve optimal outcomes.
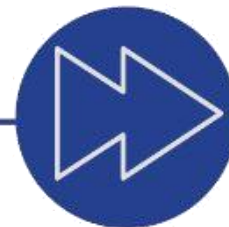
#7
Ensure patient agrees with & understands care plan which is communicated to the prescriber or provider for content & support.

#8
Document all steps & current clinical status vs. goals of therapy.
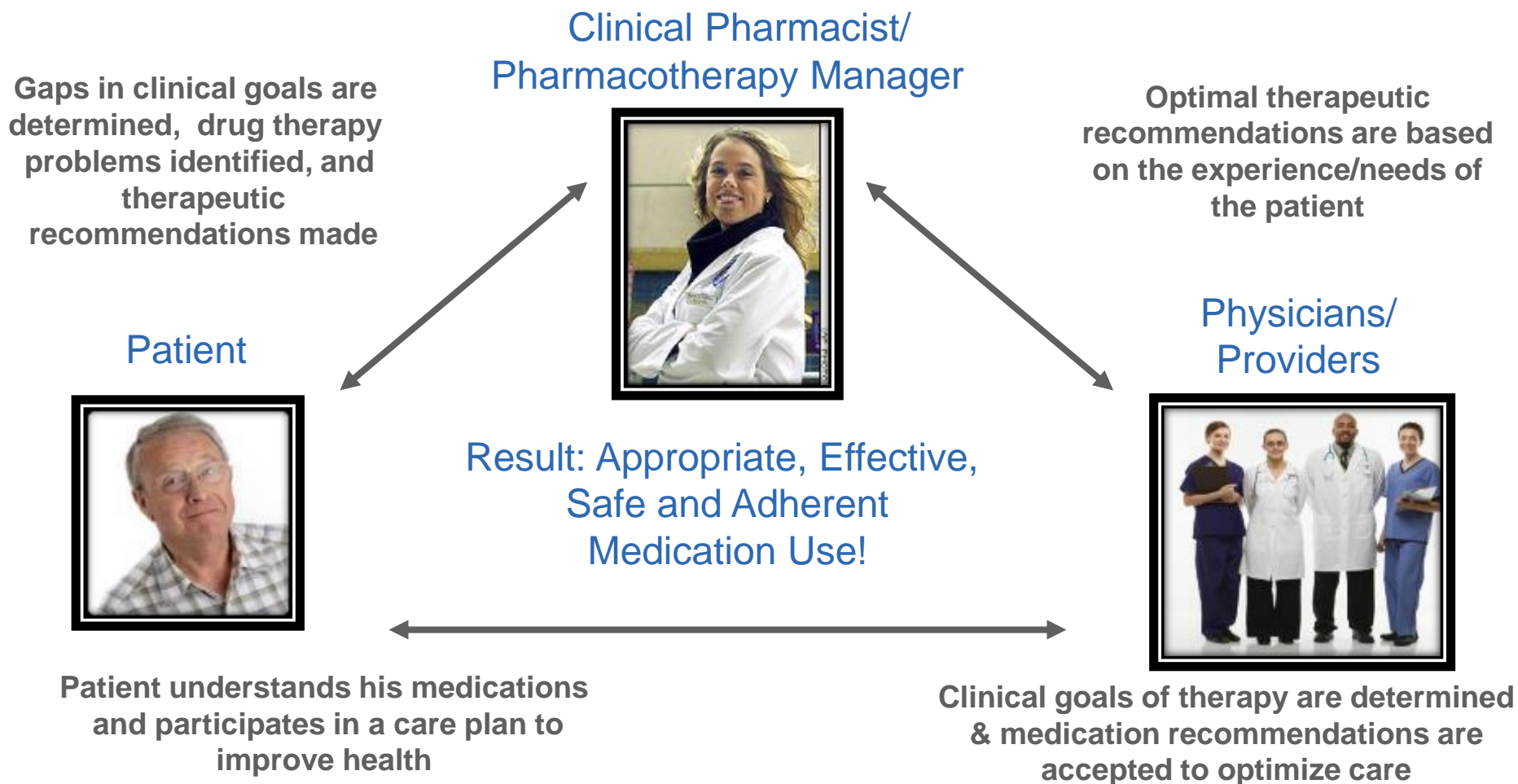
#9
Follow-up evaluations are critical to determine effects of changes, reassess actual outcomes & recommend further therapeutic changes to achieve desired clinical goals & outcomes.

#10
CMM is a reiterative process! Care is coordinated with other team members & personalized goals of therapy are understood by all team members.

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Benefits of Comprehensive Medication Management

Clinical Pharmacist/ Pharmacotherapy Manager

Gaps in clinical goals are determined, drug therapy problems identified, and therapeutic recommendations made

Optimal therapeutic recommendations are based on the experience/needs of the patient

Patient

Physicians/ Providers

Result: Appropriate, Effective, Safe and Adherent Medication Use!

Patient understands his medications and participates in a care plan to improve health

Clinical goals of therapy are determined & medication recommendations are accepted to optimize care

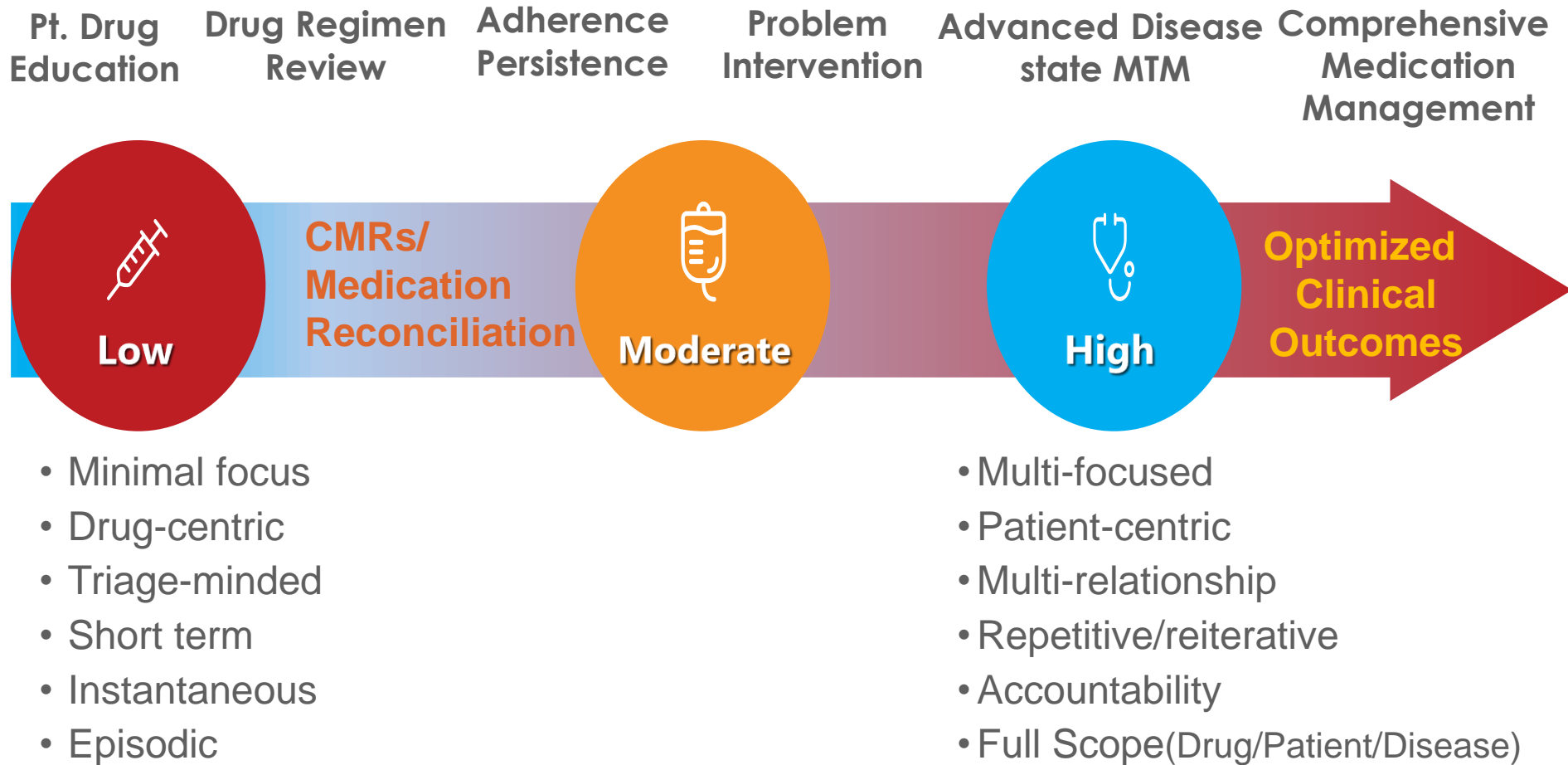GTMRx Institute™
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Opportunity: Reduce drug therapy problems

Hepler and Strand[1] proposed eight categories of **drug therapy problems** that can translate to TFs and NMPs:

1. untreated indication
2. improper drug selection
3. subtherapeutic dosage
4. failure to receive drugs
5. overdosage
6. ADRs
7. drug interactions
8. drug use without indication

1. Hepler CD, Strand LM. Opportunities and responsibilities in pharmaceutical care. *Am J Hosp Pharm*. 1990;47:533-543.

Progression of Clinical Pharmacy Service Intensity and Coordinated Medication Management

Pt. Drug Education

Drug Regimen Review

Adherence Persistence

Problem Intervention

Advanced Disease state MTM

Comprehensive Medication Management

Low

CMRs/ Medication Reconciliation

Moderate

High

Optimized Clinical Outcomes

- Minimal focus
- Drug-centric
- Triage-minded
- Short term
- Instantaneous
- Episodic

- Multi-focused
- Patient-centric
- Multi-relationship
- Repetitive/reiterative
- Accountability
- Full Scope (Drug/Patient/Disease)

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Our Proposed Solution to the $528B Wasted

"We propose expansion of comprehensive medication management programs by clinical pharmacists in collaborative practice with physicians and other prescribers as an effective and scalable approach to mitigate these avoidable costs and improve patient outcomes." [1]

- The predicted US physician shortage, up to 122,000 by 2032, can be addressed with clinical pharmacist services[2]
- Physicians spend **26 seconds** on guideline-recommended components and **23 seconds** on all other aspects of a prescription when talking to patients about a new medication (within a mean office visit time of 15.9 minutes).[3]

[1] (Annals of Pharmacotherapy, 26 March 2018)
[2]https://news.aamc.org/press-releases/article/2019-workforce-projections-update/
5. Tarn, D. M., Paterniti, D. A., Kravitz, R. L., Heritage, J., Liu, H., Kim, S., & Wenger, N. S. (2008). How much time does it take to prescribe a new medication? Patient Education and Counseling, 72(2), 311-319.
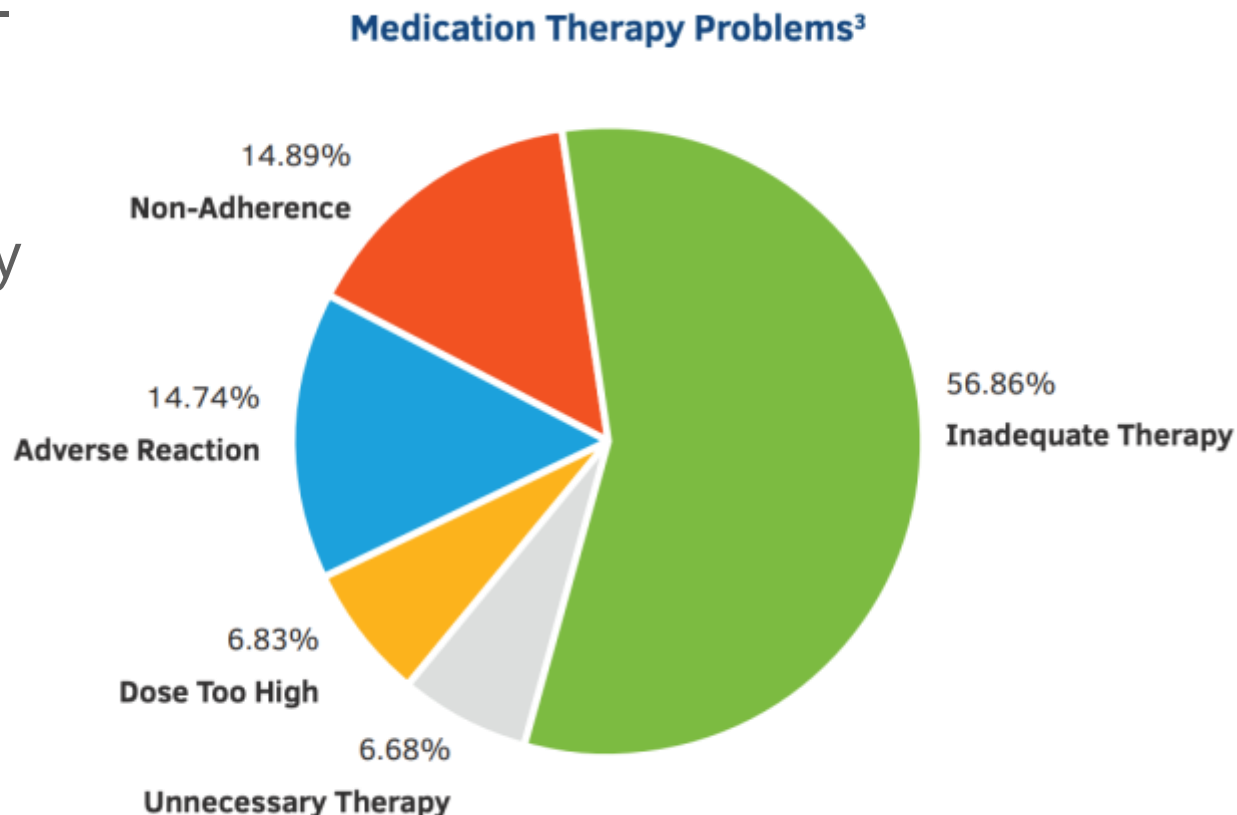https://www.sciencedirect.com/science/article/pii/S073839910800116X?via%3Dihub

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The Pharmacist Workforce

What will it take to expand use of CMM?

- *Education and Training for CMM*
- *Integration of CMM into Clinical Care Teams*

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Expand Use of CMM - Pharmacist Workforce

- It is more than non-adherence
- Wide range of Medication Therapy Problems (MTPs)

Medication Therapy Problems[3]

- 14.89% Non-Adherence
- 14.74% Adverse Reaction
- 6.83% Dose Too High
- 6.68% Unnecessary Therapy
- 56.86% Inadequate Therapy

https://www.accp.com/docs/positions/misc/CMM%20Brief.pdf

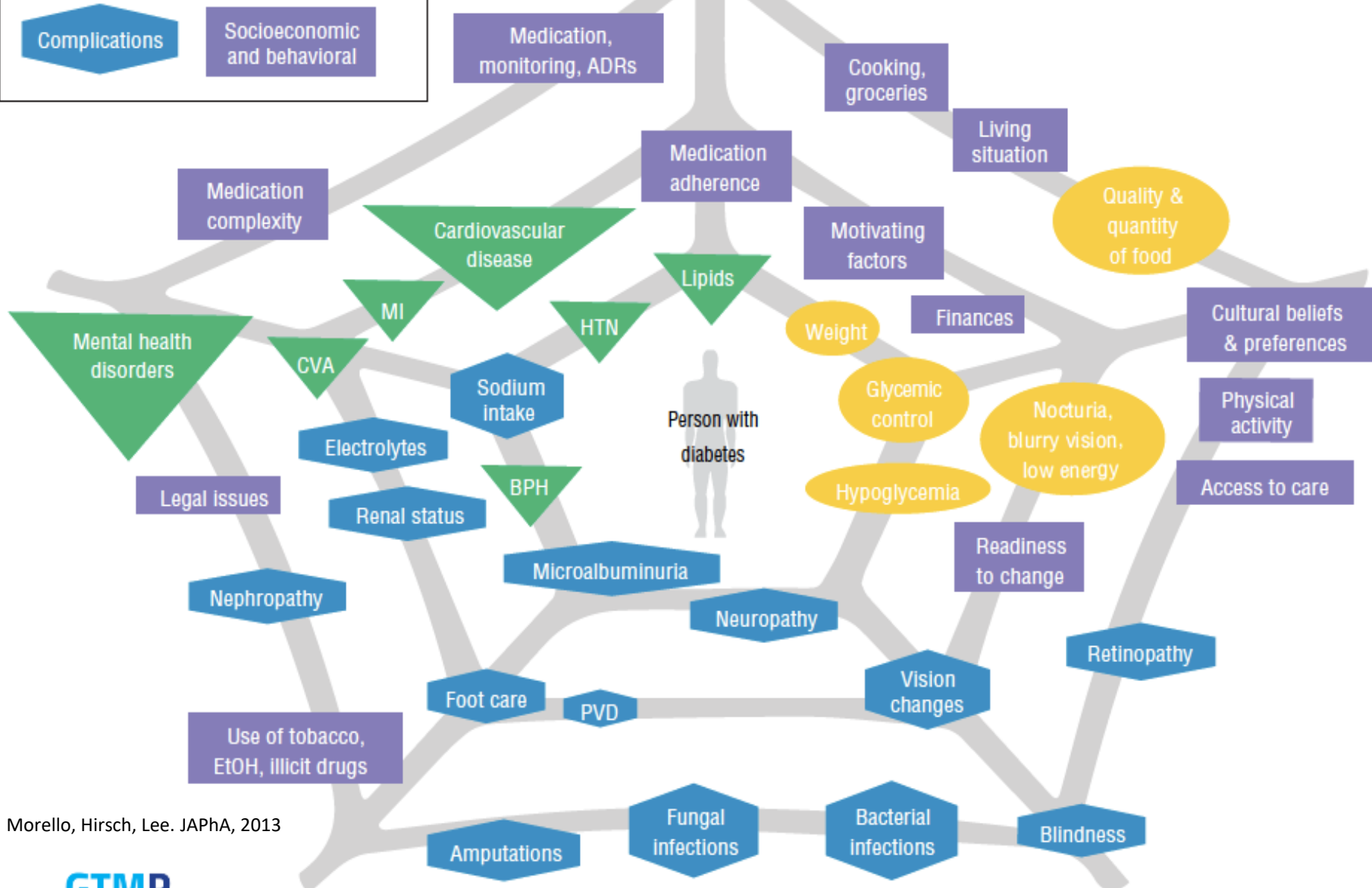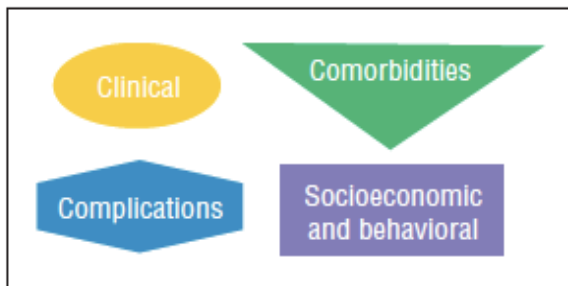GTMRx Institute™
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Expand Use of CMM - Pharmacist Workforce

- Medication regimen complexity
  - Number of medications
  - Route of administration
  - Directions for use & monitoring

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CMM – Inside a Pharmacist's Head
Spider Web teaching and implementation tool

Morello, Hirsch, Lee. JAPhA, 2013

Spider Web View & CMM

- Treating the **whole person**
  - physical, mental, social, spiritual, environmental
- **Integrative** Healthcare
  - **Blends** wide range of modalities: conventional & complementary
- Delivered **collaboratively** by wide range of health care professionals
  - Is interprofessional
- Complex
  - Requires specialized education

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Education and Training for CMM

- Pharmacy
    - Doctor of Pharmacy (PharmD) Students
    - Practicing Pharmacists
    - Pharmacy Technicians

- Team Members (e.g. Physicians, Nurses, Caregivers)
    - Awareness and expectations

- Patients and the Public
    - Awareness and expectations

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Education – PharmD Students

CMM for increasingly complex medications and unmet primary care needs

Train PharmD:

- ***Strong science*** base to really understand the complexity
- ***In-depth*** experience with ***clinical applications***
- ***Interprofessional education*** to be "team ready"
- ***Evaluation*** methods and tools
- ***Communicate and demonstrate*** new roles

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Education – PharmD Curriculum
Selected Elements in Accreditation Standards Supporting CMM

- 3 or 4 Year Program (often after B.S. degree)

- Foundational sciences
  - Biomedical, Pharmaceutical, Clinical, Social/Behavioral/Administrative

- Application of the Pharmacist's Patient Care Process (PPCP) & work with other providers & caregivers

https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf

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PharmD Curriculum

Biomedical Sciences

Anatomy
Biochemistry
Biostatistics
Immunology
Microbiology
Pathophysiology
Physiology

Pharmaceutical Sciences

Clinical Chemistry
Compounding
Medicinal Chemistry
Pharmaceutical Calculations
Pharmaceutics
Pharmacogenomics
Pharmacokinetics
Pharmacology
Toxicology

Clinical Sciences

Clinical Pharmacokinetics
Dispensing, Distribution, Administration
Health Informatics
Health Information and Evaluation
Natural Products & Alternative Therapies
Patient Assessment
Patient Safety
Pharmacotherapy
Public Health
Self-Care Pharmacotherapy

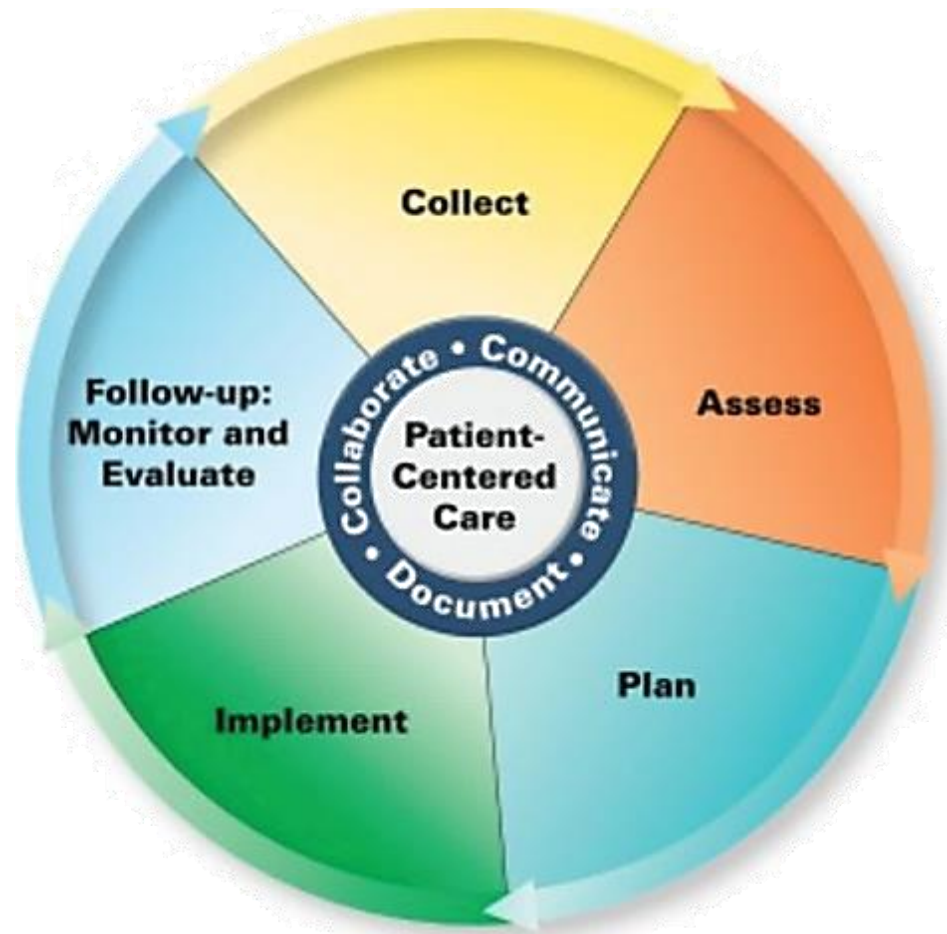## Social/Admin/Behavioral Sciences

Cultural Awareness
Ethics
Healthcare Systems
History of Pharmacy
Pharmacoeconomics
Pharmacoepidemiology
Pharmacy Law and Regulatory Affairs
Practice Management
Professional Communication
Professional Development/Social & Behav
Research Design

https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf

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Pharmacist's Patient Care Process (PPCP)

https://jcpp.net/patient-care-process/

Education – PharmD Curriculum
Selected Elements in Accreditation Standards Supporting CMM

- Entrustable Professional Activities (EPAs)
  - Professional activities graduates perform routinely that help gain the trust of the health care team and the public they serve
- Interprofessional Education (IPE)
  - Prepares students to provide entry-level, patient-centered care as a contributing member of an interprofessional team.
- *Introductory* Pharmacy Practice Experiences (IPPE): 300 hrs
- *Advanced* Pharmacy Practice Experiences (APPE): 1440 hrs
- Commitment to Continued Professional Development (CPD)
- Promote self-directed and life long learning

https://www.acpe-accredit.org/pdf/Standards2016FINAL.pdf

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Education – Pharmacy Residencies
Post-Graduate Clinical Training

- Perform as a licensed pharmacist
  - Training under the supervision of an experienced preceptor
- Direct patient care and practice management
- About 2500 Accredited Residency Programs
  - PGY 1: General PGY 2: Specialty
- 2019: 5,090 individuals matched for residency
- Last 5 years positions increased 40%
  - PGY 34%
  - PGY2 64%
    - Ambulatory Care, Infectious Diseases, Oncology, Emergency Medicine, Pain Management & Palliative Care

https://www.ashp.org/news/2019/04/10/ashpspharmacyresidencymatchmeetsincreasedneedforpostgraduatetraining
https://www.ashp.org/news/2019/03/15/ashp-2019-residency-match-phase-i-shows-continued-increase-in-positions

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Education – Practicing Pharmacists
Post-Graduate Clinical Continuing Education - EXAMPLES

- **Patient Centered Primary Care Collaborative (PCPCC) CMM Resource Guide** https://www.pcpcc.org/sites/default/files/media/medmanagement.pdf

- **Continuing Education Programs**
  - related to elements of CMM and advanced pharmacotherapy
  - professional association CMM focused programs, for example:

  - ACCP
    - CMM in team-based care https://www.accp.com/docs/positions/misc/CMM%20Brief.pdf
    - Patient care process for delivering CMM
      https://www.accp.com/docs/positions/misc/CMM_Care_Process.pdf

  - ASHP
    - A3 Collaborative https://www.ashp.org/Pharmacy-Practice/A3-Collaborative

  - APhA
    - Patient care resources and continuing education modules for CMM elements
      https://www.pharmacist.com/resources/patient-care

Education – Practicing Pharmacists
Post-Graduate Clinical Continuing Education - EXAMPLES

Pharmacy School Programs
- Related to elements of CMM and advanced pharmacotherapy
  - CE and certificate programs https://pharmacy.unc.edu/research/centers/cmo/resources/

Advanced Practice Pharmacist training (applicable states)
- Advanced Practice Pharmacist Certificate in Comprehensive Medication Management   https://pharmacyschool.usc.edu/programs/ce/medication-management/

Collaborative learning groups
- California Right Meds Collaboration http://calrightmeds.org

Board Certified Specialties
- Board of Pharmacy Specialties (BPS) https://www.bpsweb.org/

Others evolving…

Clinical Pharmacists Delivering CMM

- Specialized advanced education and training
- Accredited residency training or equivalent post-licensure experience
- Credentialed within health system
- Board certification in specialty (often)
  - Ambulatory Care
  - Critical Care Pharmacy
  - Nuclear Pharmacy
  - Nutrition Support Pharmacy
  - Oncology Pharmacy
  - Pediatric Pharmacy
  - Pharmacotherapy
  - Psychiatric Pharmacy

https://www.accp.com/stunet/compass/certification.aspx

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Integration of CMM into clinical care teams

National Academies of Practice
- National organization of 14 health care professions
- **Vision:** Lead & exemplify interprofessional healthcare to promote and preserve health and well-being
- **Conducted review of available research re:**
  - Relationship Interprofessional Education and Interprofessional team-based practice
  - Identify gaps to bolster team-based practice

National Academies of Practice

STATE OF THE SCIENCE:
A SYNTHESIS OF INTERPROFESSIONAL
COLLABORATIVE PRACTICE RESEARCH

January 2019

https://napractice.org/Portals/0/NAP%20State%20of%20the%20Science%20-%20Final%20for%20publication.pdf

Integration of CMM into clinical care teams

It appears the relationship between interprofessional education and collaborative practice needs further exploration. Yet there is an underlying assumption that educational interventions are logically a first step toward expanding actual collaboration in practice settings.

A mindset of individual responsibility and accountability embedded in a network of equivalent partners (to include patients and their families) is required to achieve optimal interprofessional care.

Overall, these studies indicate the need for further research and interventions to understand how attitude and perception toward interprofessional practice impacts collaboration and patient care.

Integration of CMM into clinical care teams

- Interprofessional Education (IPE) is only a FIRST STEP to integrating CMM into clinical practice.

- Post-Graduate clinical continuing education examples given earlier
  - Pharmacist clinical knowledge
  - How to implement
    - As a team
    - Within an organization
    - Differing models

- Integrating CMM into care teams – COMPLEX

- A tangible component for CMM delivery is Collaborative Practice Agreement (CPA)

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Key steps to implementing CPA

Creating

- Determine goals & business case
- Examine & choose most viable practice model(s) for organization
- Create CPA involving participating providers & pharmacists

Implementing

- Provide staffing & training
- Ensure access electronic health records & information exchange all participants – including patients
- Focus on initial target patient population & patient care process

Assessing Outcomes

- Measure & assess meaningful outcomes – including ROI
- Determine or revise methods for financial sustainability
- Revise as needed for continuous quality improvement

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Question & Answer Session

Terry McInnis, MD, MPH, CPE, FACOEM
President, Co-Founder, GTMRx Institute
President, Blue Thorn Inc.

Jan Hirsch, BS Pharm, PhD
Director and Founding Dean
Pharmaceutical Sciences
University of California, Irvine

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Thank you!

- Please fill out the survey after today's session
- A recording of today's webinar and slides will be available in one week at www.gtmr.org
- Follow and like us! **gtmrxinstitute**