Collaborative Drug Therapy Management: Impact on Pharmacy Practice

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Disclosures
- None to report

Objectives
- Review the benefits that CDTM brings to patient care and medication management.
- Discuss the findings of the implementation of the NYS CDTM Pilot Program.
- Identify areas where CDTM may be incorporated into pharmacy practice.
- Explain the rationale for "credentialing" pharmacists that participate in CDTM.
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What is CDTM?

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Collaborative Drug Therapy Management:
A. Allows pharmacists independent prescribing privileges
B. May be mandatory in some health care settings
C. Can not include nurse practitioners
D. All of the above
E. None of the above

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ACCP Position Statement
- Agreement between one or more physicians and pharmacists
- Qualified pharmacists working within the context of a defined protocol are permitted to assume professional responsibility for:
  - Performing patient assessments
  - Ordering drug therapy-related laboratory tests
  - Administering drugs
  - Selecting, initiating, monitoring, continuing, and adjusting drug regimens.

Pharmacotherapy 2003;23:1210-1225
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NABP Model Practice

- "Collaborative Pharmacy Practice" is that Practice of Pharmacy whereby one or more Pharmacists have jointly agreed, on a voluntary basis, to work in conjunction with one or more Practitioners under protocol and in collaboration with Practitioner(s) to provide patient care services to achieve optimal medication use and desired patient outcomes.

- "Collaborative Pharmacy Practice Agreement" is a written and signed agreement between one or more Pharmacists and one or more Practitioners that provides for Collaborative Pharmacy Practice as defined by law and the Rules of the Board.

http://www.nabp.net/publications/model-act

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CDTM in the U.S. 2012

http://www.cdc.gov/dhdsp/pubs/docs/Pharmacist_State_Law.PDF

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CDTM Approval Timeline

http://www.nabp.net/publications/model-act
CDTM programs have demonstrated:

A. Improved patient clinical outcomes
B. Reduced health-care expenditures
C. Decreased provider workload
D. A and B
E. All of the above


Report to the Surgeon General

Objectives

- Obtain advocacy from the U.S. Surgeon General to:
  - Acknowledge pharmacists that manage disease through medication use and deliver patient care services, as an accepted and successful model of health care delivery in the United States, based on evidence-based outcomes, performance-based data, and the benefits to patients and other health system consumers.
  - Recognize pharmacists who manage disease and deliver many patient care services as health care providers. One such action is advocate to amend the Social Security Act to include pharmacists among health care professionals classified as "health care providers."
  - Have pharmacists recognized by CMS as Non-Physician Practitioners in CMS documents, policies, and compensation tables commensurate with other providers, based on the level of care provided.
  - Advance beyond discussion (and numerous demonstration projects) of the expanded roles of pharmacist-delivered patient care and move toward health system implementation.
Report to the Surgeon General

**Benefit of CDTM**

- Positive impact on disease outcomes
- Quality care, access to care, cost-containment, patient safety, and overall health system efficiency.
- Demonstrate ability to meet therapeutic targets for chronic disease states such as diabetes, hypertension, hyperlipidemia and heart failure.

**Appendix B**

- Table of 55 publications highlighting the benefit of pharmacists in terms of quality and cost of care
- Highlights the necessity of expanding the role of pharmacists to meet the needs of an aging population and increased chronic disease burden

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**Economic Benefit**

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Lowest</td>
<td>1.08 : 1</td>
<td>1.70 : 1</td>
<td>1.02 : 1</td>
</tr>
<tr>
<td>Highest</td>
<td>75.84 : 1</td>
<td>17.01 : 1</td>
<td>34.61 : 1</td>
</tr>
<tr>
<td>Median</td>
<td>4.09 : 1</td>
<td>4.68 : 1</td>
<td>4.81 : 1</td>
</tr>
<tr>
<td>Mean</td>
<td>16.70 : 1</td>
<td>5.54 : 1</td>
<td>7.98 : 1</td>
</tr>
</tbody>
</table>

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Response from the Surgeon General

- Evidence and outcomes presented support the following:
  - Health-care leadership and policy makers should explore ways to optimize the role of pharmacists through collaborative practice.
  - Collaborative practice will improve quality, contain costs and increase access to care.
  - Recognition of pharmacists as health care providers, clinicians and an essential part of the health care team is appropriate given the level of care they provide in many settings.
  - Compensation models reflective of the range of care provided are needed for sustainability.

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CDTM Demonstration Project Report

- CDTM legislation passed in 2011 required the development of a report:
  - Review the extent to which CDTM was implemented in New York State
  - Examine whether and the extent to which CDTM contributed to the improvement of quality of care for patients, reduced the risk of medication error, reduced unnecessary health care expenditures and was otherwise in the public interest.
  - Make recommendations regarding the extension, alteration and/or expansion of these provisions
  - Make any other recommendations related to the implementation of CDTM

CDTM Demonstration Sites:

<table>
<thead>
<tr>
<th>Institution / Location Program</th>
<th>Disease(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthony Jordan Health Center / Rochester Diabetes</td>
<td></td>
</tr>
<tr>
<td>Bassett Healthcare Network / Cooperstown Anticoagulation</td>
<td></td>
</tr>
<tr>
<td>Bruce Hopkins Hospital Center / Bronx Anticoagulation</td>
<td></td>
</tr>
<tr>
<td>Kingsbrook Jewish Medical Center / Brooklyn Anticoagulation</td>
<td></td>
</tr>
<tr>
<td>Memorial Sloan Kettering Cancer Center / New York Oncology</td>
<td></td>
</tr>
<tr>
<td>Memorial Medical Center / Bronx Heart Failure</td>
<td></td>
</tr>
<tr>
<td>Montefiore Medical Center / Bronx Diabetes</td>
<td></td>
</tr>
<tr>
<td>Roswell Park Cancer Institute / Buffalo Oncology</td>
<td></td>
</tr>
<tr>
<td>United Health Services / Binghamton Anticoagulation</td>
<td></td>
</tr>
<tr>
<td>Upstate Medical Center / Syracuse Diabetes</td>
<td></td>
</tr>
</tbody>
</table>

* Programs submitting data
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<table>
<thead>
<tr>
<th>Program</th>
<th>Number of Patients</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anticoagulation</td>
<td>841</td>
<td>TTR 71% – 84% Low rate of adverse effects</td>
</tr>
<tr>
<td>Asthma</td>
<td>25</td>
<td>100% patients receiving therapy demonstrated to improve disease control</td>
</tr>
<tr>
<td>Diabetes</td>
<td>195</td>
<td>HbA1C Control 22% – 79% at goal 7% – 15% decrease in 4 – 12 months</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>78</td>
<td>30 Day Hospitalization: 0 – 9 % ACEI / ARB: 88% Beta Blocker: 91%</td>
</tr>
<tr>
<td>HIV</td>
<td>264 visits</td>
<td>Interventions optimized efficacy, safety and adherence</td>
</tr>
<tr>
<td>Oncology</td>
<td>2304 interventions</td>
<td>Interventions optimized efficacy, safety and adherence</td>
</tr>
</tbody>
</table>

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**CDTM Demonstration Results**

**Economic Impact**

![Economic Impact Chart](chart.png)

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**CDTM Demonstration Results**

**Provider Satisfaction**

![Provider Satisfaction Chart](chart.png)


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**CDTM Demonstration Results**

*Patient Satisfaction Survey (N = 131)*

- Yes, 96%
- No, 1%
- Unsure, 3%

**Care Improved with Pharmacist on Healthcare Team (n=124)**

- Excellent
- Very Good
- Good

**Additionally, those oncology patients surveyed also responded favorably**

![Chart showing patient satisfaction survey results]

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**Patient Satisfaction Comments**

- "Exceptional personnel"
- "Feeling better since being here"
- "I get to know more about my medication and its effectiveness"
- "My care is exceptional from my pharmacist"
- "Saved my life. Saved my sister’s life. I’m thankful for the patience and taking the time with me"
- "Pharmacists give you a better understanding of what your meds is supposed to do"
- "She is very patient and understanding with me. I enjoy her being the one helping me"

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**Where is OLDEST CDTM program in the US?**

- California
- VA System
- Indian Health Service
- New York
- Alabama
Indian Health Service (IHS)

- In 1996, IHS pharmacists are established as primary care providers (PCPs) and allowed privileges to include prescriptive authority.
- Pharmacists providing collaborative patient care must be locally or nationally accredited.
- Local accreditation expected to follow national standards.
- National Clinical Pharmacy Specialists (NCPS) Program:
  - Review credentials, protocols, training, education and experience of IHS and Bureau of Prisons pharmacists, and grant NCPS certification to recognize a pharmacist’s local privileges that meet the specified national standards for credentialing.
  - Mechanism to assure all Clinical Pharmacy Specialists in the IHS display a uniform level of competency.
- Help promote universal recognition of NCPS pharmacists as billable providers.

NCPS Credentialing

- Pharmacists practicing under local requirements submit credentials to NCPS Committee.
- Required Credentials:
  - Two Experiential Components:
    - 2–4 years in IHS practice
    - 1 year in clinical practice with requested disease state as a local clinical pharmacy specialist.
  - Attestation letters of competence from physician.
- Didactic Credentials:
  - May include disease management credentials, board certification, additional course work.
  - NCPS approved collaborative practice agreement.
- Recertification must occur every 3 years.

North Carolina Clinical Pharmacist Practitioner (CPP)

- Provide drug therapy management, including controlled substances, under the direction of, or under the supervision of a licensed physician who has provided written instructions for patient and disease specific drug therapy which may include ordering, changing, substituting therapies or ordering tests.
- Only a pharmacist approved by the Pharmacy Board and the Medical Board may legally identify himself as a CPP.
- "Supervising Physician" means a licensed physician who, by signing the CPP agreement, is held accountable for the ongoing supervision and evaluation of the drug therapy management performed by the CPP as defined in the physician, patient, pharmacist and disease specific written agreement.
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North Carolina
CPP Required Credentials

1. Meets ONE of the following qualifications:
   - Certification
     - Board of Pharmaceutical Specialties
     - Certified Geriatric Pharmacist as certified by the Commission for Certification in Geriatric Pharmacy
     - Completed an American Society of Health System Pharmacists (ASHP) accredited residency program, which includes two years of clinical experience approved by the Boards
   - Doctor of Pharmacy
     - Three years of clinical experience and
     - Completed an approved certificate program in the area of practice covered by the CPP agreement
   - Bachelor of Science in Pharmacy
     - Five years of clinical experience and
     - Completed two NCCPC or ACPE approved certificate programs with at least one program in the area of practice covered by the CPP agreement

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California
A pharmacist recognized by the board as an advanced practice pharmacist may do all of the following:

1. Perform patient assessments.
2. Order and interpret drug therapy-related tests.
3. Refer patients to other health care providers.
4. Participate in the evaluation and management of diseases and health conditions in collaboration with other health care providers.
5. Initiate, adjust, or discontinue drug therapy in the manner specified in paragraph (4) of subdivision (a) of Section 40522.

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California
Advanced Practice Pharmacist Credentials

1. Satisfy any TWO of the following criteria:
   - Certification in a relevant area of practice (not limited to): ambulatory care, critical care, geriatric pharmacy, nuclear pharmacy, nutrition support pharmacy, oncology pharmacy, pediatric pharmacy, pharmacotherapy, or psychiatric pharmacy
   - From an organization recognized by the ACPE or another entity recognized by the board.
   - Postgraduate residency through an accredited postgraduate institution
     - At least 50 percent of the experience includes the provision of direct patient care services with interdisciplinary teams.
   - Have provided clinical services to patients for at least one year
   - Under a collaborative practice agreement or protocol with a physician, advanced practice pharmacist, pharmacist practicing collaborative drug therapy management, or health system.
How do we ensure competence?

Competence
- The ability to do something successfully or efficiently
  - Google
- The minimum amount of knowledge and skills necessary to not kill someone
  - Leigh Briscoe-Dwyer
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“It has become increasingly difficult to keep abreast of and to assimilate the investigative reports which accumulate day after day. [My colleague]... was ill at ease because he felt unable to control even the area of his own discipline; one suffocates, he once told me, through exposure to the massive body of rapidly growing information.”

Dr. Bernhard von Langenbeck, 1872

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Competency Assessment

- Initial
  - Licensure
  - Employer
  - Residency/Fellowship training
  - Board certification
- Ongoing
  - Self-assessment
  - Employer
  - Traineeships
  - Recertification
  - Continuing Education programs

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Credentialing
Credentialing Definitions

- **Credential**
  - Documented evidence of professional qualifications
  - Includes diplomas, licenses, certificates and certifications

- **Credentialing**
  - The process of granting a credential
  - The process by which an organization or institution obtains, verifies, and assesses an individual's qualifications to provide patient care services

- **Certification**
  - Voluntary process by which a nongovernmental agency grants recognition to an individual who has met certain predetermined qualifications
  - Granted to designate to the public that the individual has attained the requisite level of knowledge, skill and/or experience in a well-defined, often specialized area of the total discipline
  - Usually requires initial assessment and periodic reassessments of the individual's knowledge, skill and/or experience

- **Privileging**
  - Process by which a health care organization, having reviewed an individual health care provider's credentials and performance and found them satisfactory, authorizes that individuals to perform a specific scope of patient care services within that organization
Why credentialing in pharmacy?

- Increasing complexity in healthcare
  - Technology advancement
  - Expectation of pharmacist involvement in patient care teams
  - Participation / management of advanced practice activities
- Demand for safe, effective and high quality care
  - IOM report — licensure/CE inadequate
  - Consumer group/public demand
  - Scrutiny by hospital quality and risk departments

Council on Credentialing in Pharmacy (CCP)

- Pharmacy organizations coalition providing leadership, guidance, public information and coordination for pharmacy credentialing programs

- Academy of Managed Care Pharmacy (AMCP)
- Accreditation Council for Pharmacy Education (ACPE)
- American College of Clinical Pharmacy (ACCP)
- American Pharmacist Association (APhA)
- American Society of Consultant Pharmacists (ASCP)
- American Society of Health-System Pharmacists (ASHP)
- Board of Pharmaceutical Specialties (BPS)
- Commission for Certification in Geriatric Pharmacy (CCGP)
- Council on Certification of Pharmacy Technicians (CPTC)
- Institute for the Certification of Pharmacy Technicians (ICPT)
- Pharmacy Technician Educators Council (PTEC)

Credentials required for privileges:

- Fellowship
- Residency PGY1
- Board Certification
- Residency PGY2
- Organization-specific certification
- PharmD Degree
- Proof of experience
- Degree or training beyond baccalaureate
- Proof of graduation
- Proof of license
Board Certification

- Pharmacist-only
- Board of Pharmaceutical Specialties (BPS)
  - Ambulatory Cardiology (AQ), ID (AQ), Nuclear, Nutrition Support, Oncology, Pharmacotherapy, Psychiatry
  - BPS is by the National Commission for Certifying Agencies
- Pediatric and Critical Care Fall 2015
- Commission for Certification in Geriatric Pharmacy
  - Certified Geriatric Pharmacist
- Multidisciplinary
  - Various certification bodies
  - Anticoagulation, Asthma, BLS/ACLS, Clinical Pharmacology, Diabetes (education and management), Health Information Technology, HIV, Lipid, Pain (education and management), Poison information, Toxicology

http://www.pharmacycredentialing.org/Files/CertificationPrograms.pdf
Qualifications required to participate in CDTM (NYS)

- **Current Requirements**
  - Pharm.D. or a Master of science in Clinical pharmacy
  - Minimum of two years of experience with at least one year of clinical experience in a health facility
  - Bachelor of science in pharmacy
  - Minimum of three years of experience, within the last 7, of which at least one year of such clinical experience in a health facility

- **Proposed Requirements**
  - Degree and site of practice will not be considered
  - Will closely mirror California credentials
  - Process for experience confirmation

California Advanced Practice Pharmacist Credentials

- Satisfy any TWO of the following criteria:
  - Certification in a relevant area of practice (not limited to)
    - Ambulatory care, critical care, geriatric pharmacy, nuclear pharmacy, nutrition support pharmacy, oncology pharmacy, pediatric pharmacy, pharmacotherapy, or psychiatric pharmacy
  - From an organization recognized by the ACPE or another entity recognized by the board.
  - Postgraduate residency through an accredited postgraduate institution
  - At least 50 percent of the experience includes the provision of direct patient care services with interdisciplinary teams.
  - Have provided clinical services to patients for at least one year
  - Under a collaborative practice agreement or protocol with a physician, advanced practice pharmacist, pharmacist practicing collaborative drug therapy management, or health system.

Why Residency Training?

- Allows training as a licensed practitioner under the supervision of an experienced preceptor
- Develops skills specific to the management of drug therapy in a systematic fashion
  - Direct patient care and practice management
  - Supported by ACCP and ASHP
  - 2020 Goal: All pharmacists that provide direct patient care will have completed a PGY1 residency
- Expansion of residency programs will be necessary to achieve this goal
  - Residency equivalency process / practice portfolio

Pharmacotherapy 2009;29(12):399e–407e
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PGY 1 Residency Training

Supply vs. Demand

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Center for Pharmacy Practice Accreditation

- Partnership established by APhA, NABP, and ASHP
- Mission is to serve the public health by raising the level of pharmacy delivered patient care services through accreditation of the pharmacy practice.
- Exists to fulfill a promise to patients for high quality, safe, and efficient pharmacy care
- Initial accreditation will be community practice

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Who made that statement that pharmacists could be “the most transformative force in improving health for patients and reducing costs”

- Paul Abramowitz
- Terry McInnis
- Debra Glick
- Barack Obama
- Scott Giberson
Conclusions

- CDTM programs allow pharmacists to partner with practitioners to:
  - Improve clinical outcomes
  - Reduce costs
  - Increase patient satisfaction
  - Improve overall care

- Successful implementation of CDTM requires
  - Expanded scope of practice
  - Appropriately trained and credentialed pharmacists
  - Financially sustainable programs