The Role of Health System Specialty Pharmacy in Cardiometabolic Disease Care

ELEVATING SPECIALTY PHARMACY

SHIELDS
HEALTH SOLUTIONS

Meet Our Speakers

Nicholas Bull

Clinical Director of Population Health

Shelby Clem

Manager of Population Health

Cardiometabolic Disease Webinar

Meeting Agenda

01 WHAT IS CARDIOMETABOLIC DISEASE? (CMD)

02 PHARMACY CHALLENGES IN CMD SPACE

03 HOW HSSP CAN SUPPORT PATIENTS WITH CMD

04 CURRENT SHIELDS IMPACT ON CMD-ADJACENT DISEASE AREAS

05 IMPACT OF CLINICAL PHARMACIST SUPPORT IN CMD (PATIENT STORY)

06 CONCLUSION

What is Cardiometabolic Disease?

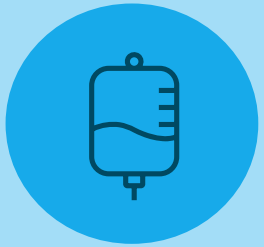
Defined as a group of interrelated health conditions that affect both the cardiovascular and metabolic systems. This includes but is not limited to: Heart disease, Type 2 Diabetes (T2DM), Hypertension and Chronic Kidney Disease.

Causes & Risk Factors

- Causes can include a combination of lifestyle, genetic and environmental factors
- Contributes to overall metabolic dysfunction and vascular damage
- Additional risk factors include family history of CMD, age, socioeconomic status and ethnicity

Associated Problems

- Associated health risks can compound themselves, causing greater physical complications and higher healthcare costs
- CMD complications are often treated individually rather than comprehensively
- Creates complex care and disease management



Treatment Options

- Lifestyle changes, including diet and exercise
- Possible implementation of antihypertensive medications and statins
- Social care and support from healthcare staff
- Implementation of GLP-1 therapy and/or SGLT2 inhibitors

Cardiometabolic Disease (CMD) Fast Facts

- Cardiometabolic disease has become one of the ***greatest drivers of healthcare utilization and mortality*** globally
  - Diabetes and cardiovascular disease account for an annual cost of $1.3 trillion and 31% of deaths respectively
- Estimated ***annual per patient cost of patients with on component of CMD is $5,564***, growing to over $12,000 for a patient with four components
- ***Healthcare costs range between $100 billion and $300 billion*** depending on the component of CMD associated with the patient

1 Bommer, C., Heesemann, E., Sagalova, V., Manne-Goehler, J., Atun, R., Bärnighausen, T., Davies, J., & Vollmer, S. (2017). The global economic burden of diabetes in adults aged 20-79 years: A cost-ofillness study. The Lancet Diabetes & Endocrinology, 5(6), 423-430. https://doi.org/10.1016/S2213-8587(17)30097-9 2 World Health Organization. (2021, March 9). Cardiovascular diseases (CVDs) [Fact sheet]. https://www.who.int/en/news-room/ fact-sheets/detail/cardiovascular-diseases-(cvds) Kelli HM, Kassas I, Lattouf OM. Cardiometabolic syndrome: a global epidemic. J Diabetes Metab. 2015(6):1-14. 3 Kelli, H. M., Kassas, I., & Lattouf, O. M. (2015). Cardiometabolic syndrome: A global epidemic. Journal of Diabetes and Metabolism, 6, 1-14. https://doi.org/10.15386/cjmed-993. 4 Miao, L., Targher, G., Byrne, C. D., Cao, Y.-Y., & Zheng, M.-H. (2024). Current status and future trends of the global burden of MASLD. Trends in Endocrinology & Metabolism, 35(8), 697-707. https:// doi.org/10.1016/j.tem.2024.02.007**[1](https://eprints.soton. ac.uk/487123/)[2](https://eprints.soton.ac.uk/487123/1/draft_ R1_20240205_002_.pdf) 5Joynt Maddox, K. E. (2024). Health economics of cardiovascular disease in the United States. Circulation, 150(6). https://doi. org/10.1161/CIRCULATIONAHA.124.068295 6 Parker, E. D., Lin, J., Mahoney, T., Ume, N., Yang, G., Gabbay, R. A., ElSayed, N. A., & Bannuru, R. R. (2024). Economic costs of diabetes in the U.S. in 2022. Diabetes Care, 47(1), 26-43. https:// doi org/10.2337/dci23-0085**[1](https://diabetesjournals.org/care/ article/47/1/26/153797/Economic-Costs-of-Diabetes-in-the-U-Sin-2022)

Where and How Does CMD Begin?

Understanding the risk factors for CMD is just the start. Where does CMD begin and how does it manifest itself into the body?

Starting Point

- Cardiometabolic disease (CMD) ***begins with insulin resistance*** in patients
- Tissues and target organs show a decreased response to insulin
- This ***requires higher levels of insulin*** (hyperinsulinemia) to achieve sufficient glucose uptake
- This ***insulin resistance is the launching off point*** to more complications of associated disease states

Pre-Disease

- Can include pre-diabetes and metabolic syndrome
- Presentation of MASLD can occur, which is ***fat tissue accumulation in the liver*** without chronic alcohol consumption, a hereditary disorder or use of a drug that would cause this
- Extreme ***focus on lifestyle changes*** in the pre-disease state could mean a complete reverse or at least a halt in overall disease progression

Disease State

- Once ***progression beyond pre-disease*** occurs, conditions such as type 2 diabetes (T2DM), metabolic disease associated steatohepatitis (MASH), hypertension and hypercholesterolemia can present themselves
- If untreated or undertreated, can ***result in numerous complications***, including various forms of organ diseases – impacting millions of lives

7 Garvey, W., & Mechanick, J. I. (2022). Cardiometabolic disease: Insulin resistance, obesity, and the metabolic syndrome. In V. Fuster, J. Narula, P. Vaishnava, M. B. Leon, D. J. Callans, J. S. Rumsfeld, & A. Poppas (Eds.), Fuster and Hurst's The Heart (15th ed.). McGrawHill Education. https://accessmedicine.mhmedical.com/content. aspx?bookid=3134&sectionid=26310555
8 Dumitrascu, D. L., & Neuman, M. G. (2018). Non-alcoholic fatty liver disease: An update on diagnosis. Clujul Medical, 91(2), 147-150. https://doi.org/10.15386/cjmed-993

Clinical Criteria for Metabolic Syndrome[a]

What are the clinical criteria for cardiometabolic syndrome?

RISK FACTOR	NCEP ATP III	IDF DEFINITION (2005)
Criteria	Any 3 of the 5 criteria below	Obesity, plus 2 of the 4 below
Obesity (Waist Circumference)	Men > 40 inches (101.6 cm) Women > 35 inches (88.9 cm)	N/A, central obesity already required
Triglycerides	≥ 150 mg/dL	≥150 mg/dL
HDL Cholesterol	Men <40 mg/dL Women <50 mg/dL	Men <40 mg/dL Women <50 mg/dL
Blood Pressure	>130/>85 mmHg	>130/>85 mmHg
Fasting Glucose	≥100 mg/dL	≥100 mg/dL

Cardiometabolic SDOH Factors

- Social determinants of health (SDOH) factors can contribute to these clinical criteria
- Factors including environment, accessibility to healthy foods and income level all play a role (outside of genetic predispositions) in contributing to these increased clinical risk factors

a. The metabolic syndrome is synonymous to the dysmetabolic syndrome X or insulin-resistance syndrome.
b. Criteria for central obesity differ by population; for ethnicity specific criteria see full text article Prasad H. Postgrad Med. 2012;124(1):21-30.

Therapy Options in CMD

What are common classes of medications used when treating CMD?

GLP-1 – Glucagon-like peptide-1 antagonists reduce blood sugar levels by stimulating insulin release and inhibiting release of glucagon in the body and delays gastric emptying in the early postprandial phase. ***For people with T2DM and/or obesity.***

SGLT-2 – Sodium glucose transporter 2 inhibitors reduce glucose levels by preventing the kidneys from reabsorbing glucose back into the blood, thereby increasing urinary glucose excretion. ***For people with T2DM, kidney disease and/or CHF.***

Antihypertensives and LLA's – Antihypertensives and lipid-lowering agents work to lower blood pressure and reduce LDL cholesterol. ***For people with hypertension and high cholesterol levels.***

MASH Therapies – Medications for metabolic dysfunction-associated steatohepatitis (MASH) work to reduce liver fat and can also currently include resmetirom and semaglutide. ***For people with NASH.***

Medication Therapy Challenges in CMD Spaces

What barriers are patients facing with these medications? How does this tie into pharmacy services, overall patient experience and health outcomes?

Side Effects

- Patients experience severe side effects with common drugs like GLP-1s and SGLT2's
- Inclusive of severe gastrointestinal issues and urinary complications

Adherence

- Due to issues physically and financially, adherence is low for CMD medications
- Juggling numerous medications also contributes to lower adherence

High Costs

- Many CMD medications come with high costs or insurance issues
- Prior authorizations and financial assistance options are not always available

Medication Management

- Due to complexities of CMD, numerous medications can be required
- Patient management becomes difficult and overwhelming

Drug Interactions

- If patients are filling at multiple pharmacies, potential for drug interactions increases
- Seeing multiple providers increases likelihood for issues

Discontinuation

- Discontinuation rates for GLP-1's is over 70% due to high costs and side effects after one year of use
- SGLT2 therapy discontinuation rates sit at 25%

10 Schafer, S. M., Zeithamel, M. C., Waterbury, N. V., & Lund, B. C. (2024). Assessing 1-year sodium-glucose co-transporter-2 inhibitor tolerance in older adults. Age and Ageing, 53(10), afae237. https://doi.org/10.1093/ageing/afae237 11 Lee, J. S., Escano, R. S., Therrien, N. L., Kumar, A., Bhatt, A., Pollack, L. M., Jackson, S. L., & Luo, F. (2024). Antihypertensive medication adherence and medical costs, health care use, and labor productivity among people with hypertension. Journal of the American Heart Association, 13(21). https://doi. org/10.1161/JAHA.124.037357**[2](https://www.medrxiv.org/ content/10.1101/2024.04.15.24305866v1)[1](https://doaj.org/article/6d55b28c00634e5eb8f228c17824149f) 12 Maningat, P., Gordon, B. R., & Breslow, J. L. (2013). How do we improve patient compliance and adherence to long-term statin therapy? Current Atherosclerosis Reports, 15, 291. https://doi.org/10.1007/s11883-012-0291-7**[1](https://link. springer.com/article/10.1007/s11883-012-0291-7)[2](https://link.springer.com/content/pdf/10.1007/s11883-012-0291-7.pdf)

Integration of Health System Specialty Pharmacy

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How can integration of health system specialty pharmacy (HSSP) assist and improve in these overall patient and pharmacy outcomes?

Prior Authorizations

- CMD medications often require prior authorizations
- Liaisons average a turnaround time of 2 days to alleviate the burden from patient and clinic staff

Financial Assistance

- High-cost barriers are relieved by the Shields Care Model
- Liaisons work to find viable financial assistance to alleviate the financial burden associated with these medications

Refill Coordination

- Liaisons work to proactively reach out to patients when medications are due
- This process works to prevent and/or avoid any lapses in medication adherence

Clinical Pharmacist Services

- CMD medication management becomes very complex
- Regular consultations with a clinical pharmacist is a critical part of optimized treatment

Current Shields Impact on CMD-Adjacent Disease Areas

	Diabetes	Congestive Heart Failure (CHF)	Hyperlipidemia
Adherence PDC	92%	93%	94%
Copay 85th perc	$13	$10	$35

Key Disease State Clinical Outcomes

2.5% — **Diabetes**
Avg A1C Reduction (Baseline: A1C >9)

64% — **CHF**
Avg Reduction in Admissions

$2,649 — Average TME Reduction in Patients A1C>9.0

Kathy's Story – Patient Impact

Kathy worked directly with a pharmacist Care Coach and providers at the UMass Diabetes Center of Excellence.

2 Years Of Coaching

3.4% A1C Reduction

90 Pound Weight Loss

BEFORE

- 54-year-old female
- T2DM
- A1C of 9.1%
- 260 pounds
- BP 156/71
- Complex med regime

DURING

- Put on Libre 2 CGM
- Created lifestyle changes/coaching for health improvement
- Came off of complex metformin and insulin

GRADUATION

- Spent 2 years in the coach program
- A1C of 5.7%
- 170 pounds
- BP 110/60 range
- Simplified med regime

Cardiometabolic Clinic Setup

Integration of a cardiometabolic clinic can provide numerous benefits to providers and patients alike.

Provider

- May work with physicians, nurse practitioners, physician assistants and pharmacists.
- Work can be done remotely via telehealth.
- Work to bridge gaps in care and provide comprehensive approach to patient care.

Patients

- Create a set of inclusion criteria
  - Obesity, Pre-Diabetes, MASLD, Metabolic Syndrome, etc.
- CMD provider to complete final “scrub” prior to patient outreach
- Patient appointments in-person or virtual

Outreach

- Health System Specialty Pharmacy manages benefits investigations, prior authorizations and financial assistance
- Patient support includes:
  - Adherence monitoring
  - Clinical pharmacist services

Conclusion

TEAMWORK

- Complex disease management takes a comprehensive and integrated approach
- With increased costs and health risks associated with CMD, there is an urgent need for coordinated care strategies
- HSSPs play a crucial role in the challenges faced by CMD patients, and working alongside their care team

UNDERSTANDING

- Leveraging clinical pharmacist knowledge, alongside the resources of the HSSPs, this approach can assist in overall improved patient outcomes
- Frequent touchpoints allow for both social and clinical support, working to reduce the burden of CMD

CARE

- The importance of the role of HSSPs will continue to rise
- Addressing the multifaceted needs of CMD patients, HSSPs can help mitigate the impact of this disease on patients, health systems and pharmacies alike

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www.shieldsrx.com

Contact Information:

Bill McElnea
bmcelnea@shieldsrx.com

Nicholas Bull
nbull@shieldsrx.com

Jennifer Casey
jcasey@shieldsrx.com

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