MACOMB COUNTY
COMMUNITY MENTAL HEALTH

Best Practices and Medication Safety in Polypharmacy		
Last Updated: **7/15/2024**	Owner: **MCCMH Chief Medical Officer**	Pages: **3**

I. PURPOSE:

To share existing best practices and ensure licensed prescribers follow key steps for person-centered medication review and best practices related to the use of polypharmacy when clinically indicated.

II. DEFINITIONS:

Polypharmacy:
The concurrent use of multiple medications. Although there is no standard definition, polypharmacy is often defined as the routine use of five or more medications. This includes over the counter, prescription and/or traditional and complementary medicines used by a person served. The World Health Organization (WHO) recognizes this as the "irrational prescribing of too many medicines." Appropriate polypharmacy refers to the "rational prescribing of multiple medicines based on best available evidence and considering individual patient factors and context."[1]

III. GENERAL INFORMATION:

These guidelines aim to bring attention to the issue of polypharmacy and the need to prioritize safety as clinically necessary and emphasized by the World Health Organization (WHO). Many persons served require concurrent use of multiple medicines as a necessary and beneficial treatment option, but prescribers must closely monitor the appropriateness of these prescriptions.

To reduce harm, all medications a person is taking should be considered, as these, independent of type (i.e. over the counter, complementary, and traditional medicines), may increase risks for drug-drug interactions. It should be a prescriber's goal to reduce inappropriate polypharmacy and monitor appropriate polypharmacy. As prescribers, it is important to remember that although polypharmacy increases the likelihood of adverse effects, inappropriate polypharmacy can result in poor health outcomes and increase costs of health care resources. Additionally systematic reviews show that polypharmacy can decrease medication adherence[2].

When using appropriate polypharmacy, the person's "clinical conditions, comorbidities, allergy profiles, the potential drug–drug and drug–disease interactions" are important factors

to examine along with considering the best evidence to select a medication for a given condition[1].

Risks from polypharmacy can increase in certain populations, such as those who reside in aging care facilities and/or those who are 65 years of age or older. As this group ages or has different medical diagnosis made the risk that providers will treat only one condition and add new medications for that diagnosis increases. Other groups should also be considered such as those prescribed ten or more medications, those on high-risk medications, those with multiple diagnoses, dementia, frail individuals, or those in palliative care[1]. The WHO recommends working in collaboration with pharmacists to review therapeutic plans, targeted medication management plans for persons served in high-risk groups, and establishing a medication error reporting system that does not blame those involved but works towards future prevention of errors[1].

IV. RECOMMENDED BEST PRACTICES:

Included below are strategies prescribers should consider to improve safety, enhance outcomes, and reduce risk of hospitalizations and adverse drug events.

- As part of medication reconciliation, healthcare professionals should consistently inquire and maintain up-to-date records of a person's served use of complementary medicines, traditional medicines, or remedies.

- During a medication review consider the risk–benefit ratio of the medication treatment options. Examine if the person is at risk for polypharmacy and before adding a new medication consider the effectiveness of current medications and doseages[1].

- Medication changes made by prescribers should be shared across the different care teams involved in the person's care to guarantee silos do not occur pertaining to who is prescribing what and how a newly added pharmacological agent can impact that person's risk[1].

- Managing polypharmacy can be started during the initiation of treatment, when adding new medication during a medication review, and by ensuring medication reconciliation occurs across different types of care settings. Polypharmacy combined with insufficient knowledge of a person's history increases the risk of prescribing errors and adverse drug events. This can be reduced by partnering with persons served and their caregivers.

- The prescriber, as the lead of the treatment team, is encouraged to consider strategies that assist the treatment team with the identification of high-risk persons served and develop targeted medicine management plans for persons served in collaboration with all pertinent disciplines.

- Encourage the person served to keep an accurate, legible, or printed copy of their current medication list on them, especially when seeing different prescribers[3].

- Provide proper medication education and tools that includes what to do in certain situations such as missing a dose or becoming ill. The World Health Organization (WHO) provides an example of a Medicine Sick Day Rules card which is a useful resource for persons served, care givers, and health professionals, as it promotes better management of long-term conditions through the safer, more effective and person-centered use of medicines. Its consideration helps to raise awareness of potential harms if person served continue to take certain widely prescribed medicines while suffering from a dehydrating illness[1].
- Discontinue unnecessary medication and start new medications at the lowest possible dose[4].

- Always report medication-related events. This plays a crucial role in mitigating future risks for health care professionals, persons served, and caregivers.

- Prescribers are encouraged to utilize tools such as the Beers Criteria for Medication[1] or the ARMOR tool (The Assess, Review, Minimize, Optimize, Reassess)[5] were developed to help assess polypharmacy across different populations at risk (Exhibit A).

V. REFERENCES:

1. Medication Safety in Polypharmacy. Geneva: World Health Organization; 2019 (WHO/UHC/SDS/2019.11). License: CC BY-NC-SA 3.0 IGO.

2. Zelko E, Klemenc-Ketis Z, Tusek-Bunc K. Medication Adherence in Elderly With Polypharmacy Living At Home: A Systematic Review Of Existing Studies. Mater Sociomed. 2016;28(2):129-132. doi:10.5455/msm.2016.28.129-132

3. Barber S, Thakkar K, Marvin V, Franklin BD, Bell D. Evaluation of My Medication Passport: a patient-completed aide-memoire designed by patients, for patients, to help towards medicines optimization. BMJ Open. 2014;4(8): e005608. Published 2014 Aug 19. doi:10.1136/bmjopen-2014-005608

4. Varghese D, Ishida C, Haseer Koya H. Polypharmacy. [Updated 2023 Aug 28]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK532953/

5. Gokula M, Holmes HM. Tools to reduce polypharmacy. Clinics in Geriatric Medicine. 2012;28(2):323-341. doi:10.1016/j.cger.2012.01.011

VI. EXHIBITS:

ARMOR: A Tool to Evaluate Polypharmacy in Elderly Persons, Dr Haque, Michigan State University.

Annual Review Attestation / Revision History:

Revision:	Revision/Review Date:	Revision Summary:	Reviewer/Reviser:
1	04/8/2024	Development of Best Practices	MCCMH Chief Medical Officer