**Pharmacological Management and Quality of Life in an Elderly Patient with Vascular Dementia and Comorbidities**

Student’s Name

University

Course

Professor

Date

**Pharmacological Management and Quality of Life in an Elderly Patient with Vascular Dementia and Comorbidities**

Mary is an 81-year-old Asian female with vascular dementia, type 2 diabetes, hypertension, hyperlipidemia, and osteoporosis. According to the daughter, Sara, who is her main caregiver, Mary has become very forgetful lately; she often forgets her medications and needs more assistance in activities of daily living. She fractured her hip two months ago. Current medications include aspirin, donepezil, sitagliptin, amlodipine, atorvastatin, ezetimibe, calcium with vitamin D, and acetaminophen. This essay will discuss adjustments in her treatment of hypercholesterolemia, identify potential barriers to her quality of life, and mention resources for managing her condition.

**Adjusting Medication for Hypercholesterolemia**

Mary's current treatment for hypercholesterolemia includes atorvastatin (moderate intensity) and ezetimibe. Given that her LDL is 118 mg/dL, coupled with vascular dementia, the patient is in dire need of intensification of her current lipid-lowering therapy to reduce cardiovascular risk. It is recommended that the patient start on rosuvastatin 20 mg daily, a high-intensity statin shown to decrease LDL cholesterol by greater than 50%. Continue ezetimibe 10 mg daily, which will further enhance LDL reduction. This will prevent further vascular damage, especially in a patient with high cardiovascular risk and dementia. The treatment has to be long-standing for the maintenance of lipid control.

**Rationale**: This is generally based on the guidelines of the American College of Cardiology/American Heart Association, 2013, that high-intensity statin therapy should be used in high-risk patients to prevent major cardiovascular events. This guide is essential for those patients with cardiovascular diseases and diabetes (Arnett et al., 2019).

**Barriers to Quality of Life**

Some of the barriers affecting Mary that impact her quality of life include cognitive decline and other health conditions:

**1. There is a decline in cognition:** vascular dementia has exacerbated her forgetfulness, which in turn affects her medication compliance. Her diabetes, hypertension, and hyperlipidemia may worsen with one missed dose, therefore increasing her risk for complications.

**2. Reduced Mobility:** Mary, since her hip fracture, does have reduced mobility. Though she does not report pain, apprehension of another fall could limit her independence, lead to isolation, and consequently cause a decline in health (Holbrook et al., 2021).

**3. Caregiver Strain:** As Mary becomes increasingly dependent, Sara is experiencing stress as the primary caregiver. According to Xiang, Xiao, Xu, Li, and Si, caregiver burden leads to deterioration in their ability to provide consistent care to the patient.

**Resources and Social Determinants of Health.**

**Social Determinants of Health**

For Mary, access to care was a big concern. She could not go for doctor visits as the cognitive and physical impairments worsened over time. It caused an extra burden for Sara also since she organized everything related to her mother's care (Zhang et al., 2024).

**Available Resources**

**• Home health aides:** They are in a position to assist her with daily needs and medication management, thus helping take off some responsibilities from Sara but at the same time ensuring that Mary follows her treatment plan.

**• Adult day-care programs:** These are specialized programs that provide Mary with a structured, organized environment for social and mental activities; respite for Sara; and minimizing the isolation of Mary.

**• Caregiver support groups:** Supportive, informative, and peer interaction that would help Sara deal with issues in her life.

**Conclusion**

Mary's case bestows the complexity that embodies managing multiple chronic conditions in an older patient with vascular dementia and demands a holistic approach, putting the patient at the center. Optimization of her medication by national guidelines is important, alongside addressing the most important barriers to her quality of life. Indeed, this supportive resource improves not only her health but also eases the caregiving burden on Sara and allows for more balanced caregiving. This will, in turn, enable Mary and Sara to face these burdensome yet transformative challenges together by leveraging available resources and addressing social determinants of health. The result of coordinating this multiпрONG effort assures that the care experience will truly be more compassionate and effective.

**References**

Seibert, M., Mühlbauer, V., Holbrook, J., Voigt-Radloff, S., Brefka, S., Dallmeier, D., ... & Von Arnim, C. A. F. (2021). Efficacy and safety of pharmacotherapy for Alzheimer’s disease and for behavioural and psychological symptoms of dementia in older patients with moderate and severe functional impairments: a systematic review of controlled trials. Alzheimer's research & therapy, 13, 1-20. <file:///C:/Users/ADMIN/Downloads/s13195-021-00867-8.pdf>

Yi, Y., Qu, Y., Lv, S., Zhang, G., Rong, Y., & Li, M. (2024). Comparative efficacy and safety of non-pharmacological interventions as adjunctive treatment for vascular dementia: a systematic review and network meta-analysis. Frontiers in Neurology, 15, 1397088. <file:///C:/Users/ADMIN/Downloads/fneur-15-1397088%20(1).pdf>

Burks, H. B., des Bordes, J. K., Chadha, R., Holmes, H. M., & Rianon, N. J. (2021). Quality of life assessment in older adults with dementia: A systematic review. Dementia and geriatric cognitive disorders, 50(2), 103-110. <https://karger.com/dem/article-pdf/50/2/103/3758949/000515317.pdf>

Xiao, X., Xiang, S., Xu, Q., Li, J., Xiao, J., & Si, Y. (2023). Comorbidity among inpatients with dementia: a preliminary cross-sectional study in West China. Aging Clinical and Experimental Research, 35(3), 659-667. <file:///C:/Users/ADMIN/Downloads/s40520-023-02349-3.pdf>

Arnett, D. K., Blumenthal, R. S., Albert, M. A., Buroker, A. B., Goldberger, Z. D., Hahn, E. J., ... & Ziaeian, B. (2019). 2019 ACC/AHA guideline on the primary prevention of cardiovascular disease: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. Circulation, 140(11), e596-e646. <https://www.ahajournals.org/doi/epub/10.1161/CIR.0000000000000678>