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

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Mary, an 81-year-old Asian female, suffers from vascular dementia, type 2 diabetes, hypertension, hyperlipidemia, and osteoporosis. Her daughter Sara, her primary caregiver, reports that Mary has become increasingly forgetful, missed medications, and now requires more assistance with daily tasks. Two months ago, Mary suffered a hip fracture. Her current medications include aspirin, donepezil, sitagliptin, amlodipine, atorvastatin, ezetimibe, calcium with vitamin D, and acetaminophen. This essay will discuss adjustments to her hypercholesterolemia treatment, identify barriers to her quality of life, and suggest resources to manage her condition.

**Adjusting Medication for Hypercholesterolemia**

Mary’s current treatment includes atorvastatin (moderate intensity) and ezetimibe for hypercholesterolemia. Given her LDL level of 118 mg/dL and the presence of vascular dementia, intensifying her lipid-lowering therapy is necessary to reduce cardiovascular risk. It is recommended that she switch to rosuvastatin 20 mg once daily, a high-intensity statin known to lower LDL cholesterol by over 50%. Continuing ezetimibe 10 mg daily will further enhance LDL reduction. This regimen can help prevent additional vascular damage, especially in a patient with high cardiovascular risk and dementia. The treatment should be long-term to maintain lipid control.

**Rationale:** The American College of Cardiology (ACC)/American Heart Association (AHA) guidelines recommend high-intensity statin therapy for high-risk patients, such as Mary, to prevent major cardiovascular events. These guidelines are particularly important for patients with both cardiovascular disease and diabetes (Arnett et al., 2019).

**Barriers to Quality of Life**

Mary faces several barriers that affect her quality of life due to her cognitive decline and other health conditions:

1. **Cognitive Decline:** Vascular dementia has worsened her forgetfulness, leading to difficulties with medication adherence. Missing doses can worsen her diabetes, hypertension, and hyperlipidemia, putting her at higher risk for complications (Burks et al., 2021).
2. **Reduced Mobility:** Since her hip fracture, Mary’s mobility has declined significantly. Even though she does not report pain, the fear of falling again may limit her independence, increase isolation, and lead to further health decline (Holbrook et al., 2021).
3. **Caregiver Strain:** As Mary’s dependency grows, Sara is experiencing increased stress as the primary caregiver. According to Xiang, Xiao, Xu, Li and Si caregiver burnout can impair their ability to provide consistent care for the patient(2023).

**Resources and Social Determinants of Health.**

**Social Determinants of Health:** Access to healthcare is a significant challenge for Mary. As her cognitive and physical impairments worsen, attending medical appointments becomes harder, further burdening Sara, who is responsible for coordinating all aspects of her mother’s care (Zhang et al., 2024).

**Available Resources:**

* **Home health aides:** They can assist with daily tasks and medication management, reducing Sara’s caregiving load while ensuring that Mary adheres to her treatment plan.
* **Adult daycare centers:** These programs offer a structured environment where Mary can participate in social and mental activities, providing Sara with respite and helping to reduce Mary’s isolation.
* **Caregiver support groups:** These groups offer emotional support and practical advice for Sara, helping her cope with the demands of caregiving.

**Conclusion**

Mary’s case highlights the complexities of managing multiple chronic conditions in an elderly patient with vascular dementia, requiring a holistic, patient-centered approach. Adjusting her medication based on national guidelines and addressing key barriers to her quality of life are crucial in optimizing her care. Additionally, involving supportive resources not only improves her health but also eases Sara’s caregiver burden, allowing for more balanced caregiving. Leveraging available resources and addressing social determinants of health will enhance both Mary’s and Sara’s well-being as they navigate these difficult yet transformative challenges together. Ultimately, this coordinated effort ensures a more compassionate and effective care experience.

**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>