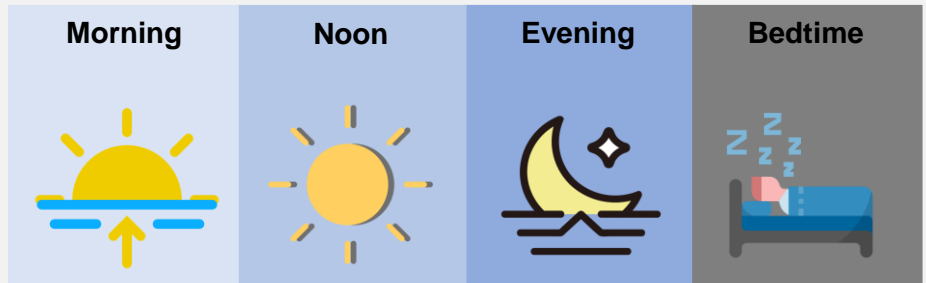# Universal Medication Schedule (UMS)

Patients across all literacy levels can misunderstand medication directions, although individuals with lower health literacy are more likely to misinterpret directions.

UMS uses specified timings such as 'morning', 'noon', 'evening', and 'bedtime' to create **explicit medication directions.**

Morning	Noon	Evening	Bedtime

Epic Systems has created a feature to translate standard directions to UMS directions.

Standard Directions

Take one tablet by mouth twice daily
Take one tablet by mouth every 12 hours
Take one tablet by mouth at 9am and 9pm

UMS Directions

Take 1 tablet by mouth in the morning and take 1 tablet in the evening

UMS Directions…

☑ Are identified as a best practice by the United States Pharmacopeia and the National Council for Prescription Drug Programs.

☑ Increase understanding of when to take medication more than any other format, reducing errors

☑ Simplify drug regimens

☑ Improve communications about medications

☑ Are a low resource strategy to improve adherence

Medication Adherence…

☑ Improved in patients who use UMS directions

☑ Is key to managing chronic conditions

Non-Adherence…

☑ Affects 25-50% of patients on prescription medication

☑ Causes 125,000 annual deaths

☑ Is the reason for 10% of hospitalizations each year

☑ Produces $100-$289 billion annually in avoidable costs

References

Bailey, S. C., Sarkar, U., Chen, A. H., Schillinger, D., & Wolf, M. S. (2012). Evaluation of language concordant, patient-centered drug label instructions. *Journal of General Internal Medicine*, *27*(12), 1707–1713. https://doi.org/10.1007/s11606-012-2035-3

Davis, T. C., Wolf, M. S., Bass, P. F., Thompson, J. A., Tilson, H. H., Neuberger, M., & Parker, R. M. (2006). Literacy and misunderstanding prescription drug labels. *Annals of Internal Medicine*, *145*(12), 887. https://doi.org/10.7326/0003-4819-145-12-200612190-00144

Iuga, A. & McGuire, M. (2014). Adherence and health care costs. *Risk Management and Healthcare Policy*, 35. https://doi.org/10.2147/rmhp.s19801

Kebodeaux, C., Woodyard, J. L., Kachlic, M. D., Allen, S. M., Schadler, A. D., & Vouri, S. M. (2020). Student pharmacists' ability to organize complex medication regimens according to the universal medication schedule. *American Journal of Pharmaceutical Education*, 84(8). https://doi.org/10.5688/ajpe7531

Viswanathan, M., Golin, C. E., Jones, C. D., Ashok, M., Blalock, S. J., Wines, R. C. M., Coker- Schwimmer, E. J. L., Rosen, D. L., Sista, P., & Lohr, K. N. (2012). Interventions to improve adherence to self-administered medications for chronic diseases in the United States. *Annals of Internal Medicine*, *157*(11), 785. https://doi.org/10.7326/0003-4819-157-11-201212040-00538

Wolf, M. S., Davis, T. C., Curtis, L. M., Bailey, S. C., Knox, J. A. P., Bergeron, A., Abbet, M., Shrank, W. H., Parker, R. M., & Wood, A. J. (2016). A patient-centered prescription drug label to promote appropriate medication use and adherence. *Journal of General Internal Medicine*, *31*(12), 1482–1489. https://doi.org/10.1007/s11606-016-3816-x

Wolf, M. S., Davis, T. C., Curtis, L. M., Webb, J. A., Bailey, S. C., Shrank, W. H., Lindquist, L., Ruo, B., Bocchini, M. V., Parker, R. M., & Wood, A. J. (2011). Effect of standardized, patient-centered label instructions to improve comprehension of prescription drug use. Medical care, 49(1), 96–100. https://doi.org/10.1097/MLR.0b013e3181f38174

Wolf, M. S., Taitel, M. S., Jiang, J. Z., Curtis, L. M., Wismer, G. A., Wallia, A., & Parker, R. M. (2020). Prevalence of universal medication schedule prescribing and links to adherence**.** *American Journal of Health-System Pharmacy*, *77*(3), 196–205. https://doi.org/10.1093/ajhp/zxz305