



An Interprofessional Person-Centered Approach to Guide a Delirium Prevention Bundle Aligned with the NICHE Model and Age-Friendly Health Systems Fundamentals at an Academic Health System

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Session Objectives



- Describe the Academic Health System strategic goals as it relates to delirium best practices.
- Explain the standardization of delirium screening & management.
- Discuss innovative delirium non-pharmacologic strategies in developing a cohesive interprofessional person-centered prevention bundle.

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Evidence Synthesis

- Up to 50% of hospitalized people experience delirium which is more common in older adults.^{1,2,3}
- Multicomponent non-pharmacological prevention strategies is the most effective strategy.^{4,5,6}
- Non-pharmacologic treatments incorporates sensory, visual, memory, precision, orientation & creative strategies.^{7,8,9}
- To have a person share their interests, lifestyle, abilities, disabilities, self-identity, likes & dislikes can help to understand individual needs.¹⁰⁻¹⁶

References

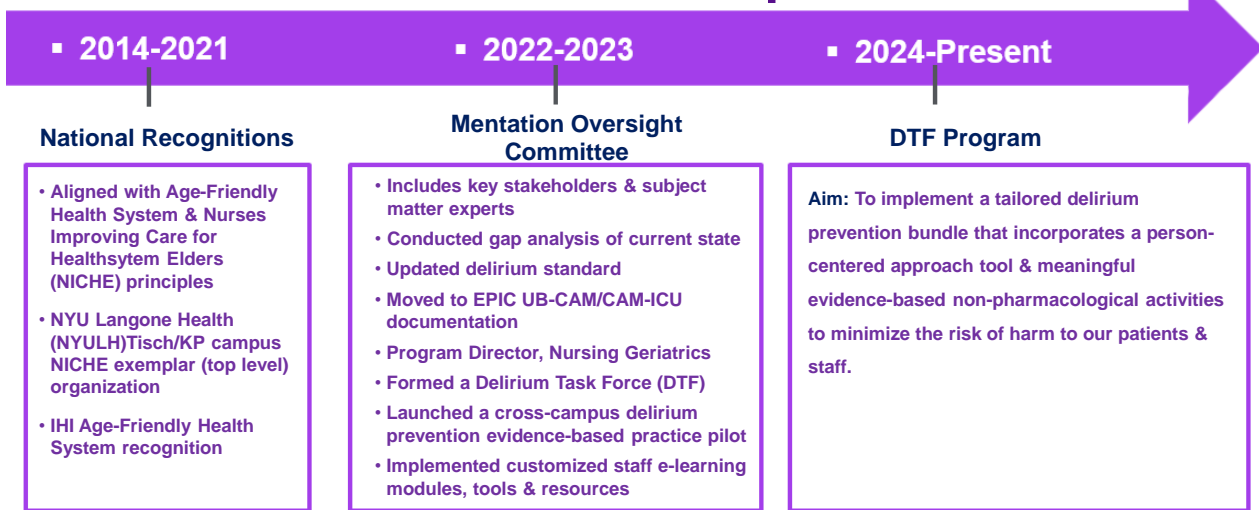


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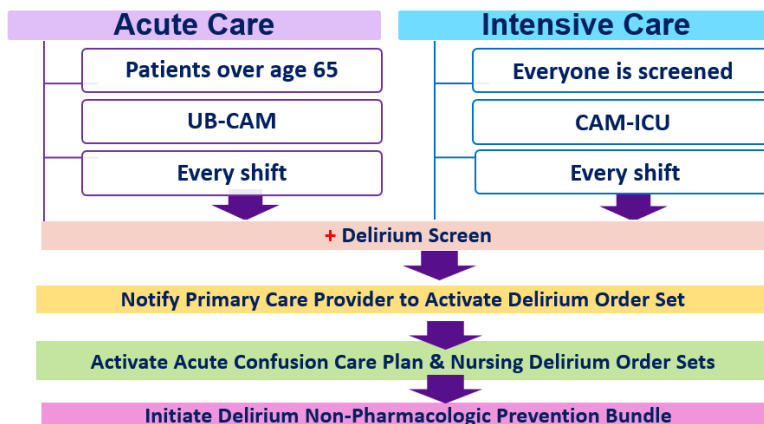
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NYU Langone Health Standardization of Care for the Geriatric Population



DM, Lopez, 2014-Present NYULH NICHE Interprofessional Program

Delirium Screening, Management & Treatment Workflow



NYU Langone Health (2022). Management of the patient with delirium, ELLUCID, Department Process Standard, available at: <https://nyumc.ellucid.com/documents/view/6705>.



Health System Pre (January 19, 2023 - June 18th 2023) vs Post (June 19, 2023 - August 13, 2023) Survey Findings

Scores - Pre vs Post

	Pre vs Post	N	Mean	Std. Deviation	Std. Error Mean
Confidence	Pre	164	20.16*	17.458	1.363
	Post	231	24.09*	17.686	1.164
Empathy 1	Pre	164	40.24	12.558	0.981
	Post	231	41.01	11.561	0.761
Empathy 2	Pre	164	38.74	12.346	0.964
	Post	231	39.93	11.09	0.73
Total Empathy	Pre	164	78.98	23.446	1.831
	Post	231	80.94	21.709	1.428

*Significant difference between pre and post scores, mean difference of 3.93 points (p<0.05)

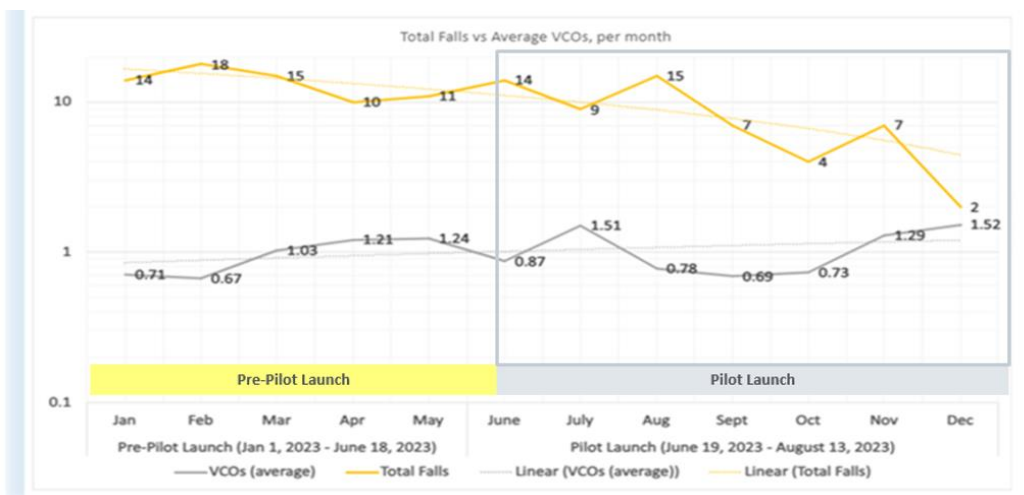
Herrera, E., Rutherford, W., Plume, T., Fields, W., & Mollon, D. (2023). Evaluation of Education and Patient Screening for Delirium Among Patients With Stroke: Knowledge, Confidence, and Patient Outcomes. *Journal of continuing education in nursing*, 54(2), 61–70; Aronson, B. D., Chen, A. M. H., Blakely, M. L., Kiersma, M. E., & Wicker, E. (2022). Evaluation and Revision of the Kiersma-Chen Empathy Scale. *American journal of pharmaceutical education*, 86(5), 8885.



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Health System Delirium Bundle Pilot Metrics



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Next Steps



Delirium outcome metrics

- Maintain compliance with screening, care plans & order-sets.
- Continue post trend CO & VCO usage & patient falls.
- Measure impact of delirium non-pharmacologic interventions.

Mentation committee

- Form provider teams to promote delirium prevention initiatives & best practice.
- Sustain strong system partnerships to provide safe care.
- Align QI, EBP & team research projects in meeting Age-Friendly Health Systems new CMS measure.

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Delirium Taskforce Interprofessional Team

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References



1. Rieck, Katie M et al. "Delirium in hospitalized older adults." *Hospital practice (1995)* vol. 48,sup1 (2020): 3-16.
2. Marcantonio, Edward R. "Delirium in Hospitalized Older Adults." *The New England journal of medicine* vol. 377,15 (2017): 1456-1466.
3. Thom, Robyn P et al. "Delirium." *The American journal of psychiatry* vol. 176,10 (2019): 785-793.
4. Malik, Anil K et al. "A New ICU Delirium Prevention Bundle to Reduce the Incidence of Delirium: A Randomized Parallel Group Trial." *Indian journal of critical care medicine: peer-reviewed, official publication of Indian Society of Critical Care Medicine* vol. 25, 7 (2021): 754-760.
5. Spazzapan, M., Vijayakumar, B., & Stewart, C. E. (2020). A bit about me: Bedside boards to create a culture of patient-centered care in pediatric intensive care units (PICUs). *Journal of healthcare risk management: the journal of the American Society for Healthcare Risk Management*, 39(3), 11–19.
6. Gajic, O., & Anderson, B. D. (2019). "Get to Know Me" Board. *Critical care explorations*, 1(8), e0030.
7. Faustino, Tássia Nery et al. "Effectiveness of combined non-pharmacological interventions in the prevention of delirium in critically ill patients: A randomized clinical trial." *Journal of critical care* vol. 68 (2022): 114-120.
8. Hsu, Ting-Jung et al. "Predictors of non-pharmacological intervention effect on cognitive function and behavioral and psychological symptoms of older people with dementia." *Geriatrics & gerontology international* vol. 17 Suppl 1 (2017): 28-35.
9. Youn, H., Lee, M., & Jang, S. J. (2022). Person-centered care among intensive care unit nurses: A cross-sectional study. *Intensive & critical care nursing*, 73, 103293.
10. Chen, C. C., Li, H. C., Liang, J. T., Lai, I. R., Purnomo, J. D. T., Yang, Y. T., Lin, B. R., Huang, J., Yang, C. Y., Tien, K. W., Kowalski, Mildred Ortu, Y. W., Chen, C. N., Lin, M. T., Huang, G. H., & Inouye, S. K. (2017). Effect of a Modified Hospital Elder Life Program on Delirium and Length of Hospital Stay in Patients Undergoing Abdominal Surgery: A Cluster Randomized Clinical Trial. *JAMA surgery*, 152(9), 827–834.
11. Dasgupta, M., Beker, L., Schlegel, K., Hillier, L. M., Joworski, L., Crunican, K., & Coulter, C. (2021). A Non-Pharmacologic Approach to Manage Behaviours in Confused Medically Ill Older Adults in Acute Care. *Canadian geriatrics journal: CGJ*, 24(2), 125–137.
12. Aakster, Y., van Delden, R., Lentelink, S. (2018). Lost Puppy: Towards a Playful Intervention for Wandering Dementia Patients. In: Cheok, A., Inami, M., Romão, T. (eds) *Advances in Computer Entertainment Technology. ACE 2017. Lecture Notes in Computer Science*, vol 10714. Springer, Cham, 84-102.



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References (continued)

13. Seah, C. E. L., & Tan, M. T. K. B. (2018). MatchLink-a multi-sensorial game for persons with dementia. In *Proceedings of the International Design Conference* (pp. 2311-2312).
14. Coleman C. (2020). Health Literacy and Clear Communication Best Practices for Telemedicine. *Health literacy research and practice*, 4(4), e224–e229.
15. Klančnik Gruden, M., Turk, E., McCormack, B., & Stiglic, G. (2021). Impact of Person-Centered Interventions on Patient Outcomes in Acute Care Settings: A Systematic Review. *Journal of nursing care quality*, 36(1), E14–E21.
16. Champagne, T. (2018). *Sensory modulation in dementia care: Assessment and activities for sensory-enriched care*. Jessica Kingsley Publishers.
17. Goodman, C., & Lambert, K. (2023). Scoping review of the preferences of older adults for patient education materials. *Patient education and counseling*, 108, 107591.
18. Hou, G., Anicetus, U., & He, J. (2022). How to design font size for older adults: A systematic literature review with a mobile device. *Frontiers in psychology*, 13, 931646.
19. Herrera, E., Rutherford, W., Plume, T., Fields, W., & Mollon, D. (2023). Evaluation of Education and Patient Screening for Delirium among Patients with Stroke: Knowledge, Confidence, and Patient Outcomes. *Journal of continuing education in nursing*, 54(2), 61–70.
20. Aronson, B. D., Chen, A. M. H., Blakely, M. L., Kiersma, M. E., & Wicker, E. (2022). Evaluation and Revision of the Kiersma-Chen Empathy Scale. *American journal of pharmaceutical education*, 86(5), 8685.
21. Iowa Model Collaborative. (2017). Iowa model of evidence-based practice: Revisions and validation. *Worldviews on Evidence-Based Nursing*, 14(3), 175-182. doi:10.1111/wvn.12223.
22. Ely EW, Margolin R, Francis J, et al. Evaluation of delirium in critically ill patients: validation of the confusion assessment method for the intensive care unit (CAM-ICU). *Crit Care Med*. 2001; 29: 1370-1379.
23. Barnes-Daly MA, Pun BT, Harmon LA, et al. Improving health Care for Critically ill Patients Using an evidence-based collaborative approach to ABCDEF bundle dissemination and implementation. *Worldviews Evid Based Nurs*. 2018; 15: 206-216. doi:10.1111/wvn.12290 Epub 2018 May 5. PMID: 29729659.
24. American Geriatrics Society. Updated AGS beers criteria® for potentially inappropriate medication use in older adults. *J Am Geriatr Soc*. 2019; 67(4): 674-694.



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References (continued)

24. Liberman T, Roofeh R, Herod S, Maffeo V, Biese K, Amato T. Dissemination of geriatric emergency department accreditation in a large health system. *J Emerg Med*. 2020; 1: 1281-1287.
25. Carney, M. T., Kwiatek, S., & Burns, E. A. (2024). Transforming health care: A large health organizations' journey to become an age-friendly health system (AFHS) and beyond. *Journal of the American Geriatrics Society*, 72(2), 579–588.
26. Kwak, M. J., Inouye, S. K., Fick, D. M., Bonner, A., Fulmer, T., Carter, E., Tabbush, V., Maya, K., Reed, N., Waszynski, C., & Oh, E. S. (2024). Optimizing delirium care in the era of Age-Friendly Health System. *Journal of the American Geriatrics Society*, 72(1), 14–23.
27. Wismann, A., Kleszynski, K., Jelinek, D., Hand, R., Lich, B., Wickersham, E., & Jennings, L. A. (2024). An age-friendly approach to primary care in an academic health system. *Journal of the American Geriatrics Society*, 72 Suppl 3, S23–S35.
28. Mate KS, Berman A, Laderman M, Kabcenell A, Fulmer T. Creating age-friendly health systems – a vision for better care of older adults. *Healthc*. 2018; 6(1): 4-6.
29. Hawley CE, Doherty K, Moyer J, et al. Implementing an interprofessional workshop based on the 4Ms for an age-friendly health system. *J Am Geriatr Soc*. 2021; 69(12):E27-E30.
30. Ritchey KC, Solberg LM, City SW, et al. Guiding post-hospital recovery by 'what matters:' implementation of patient priorities identification in a VA Community living center. *Geriatrics*. 2023; 8(4): 74.
31. Powers JS, Penaranda N. Creation of a whole health age-friendly template and dashboard facilitates implementation of 4Ms into primary care. *Geriatrics*. 2022; 7(5):109.
32. Hwang U, Runels T, Han L, et al. Dissemination and implementation of age-friendly care and geriatric emergency department accreditation at veterans affairs hospitals. *Acad Emerg Med*. 2023; 30: 270-277.
33. Jackson, Thomas A et al. "Challenges and opportunities in understanding dementia and delirium in the acute hospital." *PLoS medicine* vol. 14,3 e1002247. 14 Mar. 2017.



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THANK YOU



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