DEVELOPMENT OF A FORMALIZED RESIDENT-ATTENDING TEACHING AND FEEDBACK STRUCTURE TO IMPROVE THE CROSS COVER RESIDENT EXPERIENCE

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BACKGROUND

DUTY HOUR RESTRICTIONS IMPLEMENTED

↑ NIGHT FLOAT AND CROSS COVER TIME

↓ EDUCATIONAL VALUE

PILOT STUDY DESIGN

Intervention
UCH/ VAMC

- Cross cover form completed by intern and attending to review decisions and get feedback on decision making.

Topic 1: _____

a. Did your differential diagnosis change after talking to the attending (if applicable)? YES/NO
b. After talking to the attending, would your management be the same in the future? YES/NO
c. Circle all that apply. Did your ddx or management change because of:
   i. Gap in knowledge
   ii. Change in clinical reasoning/decision making
   iii. Systems issue
   iv. Other: _____

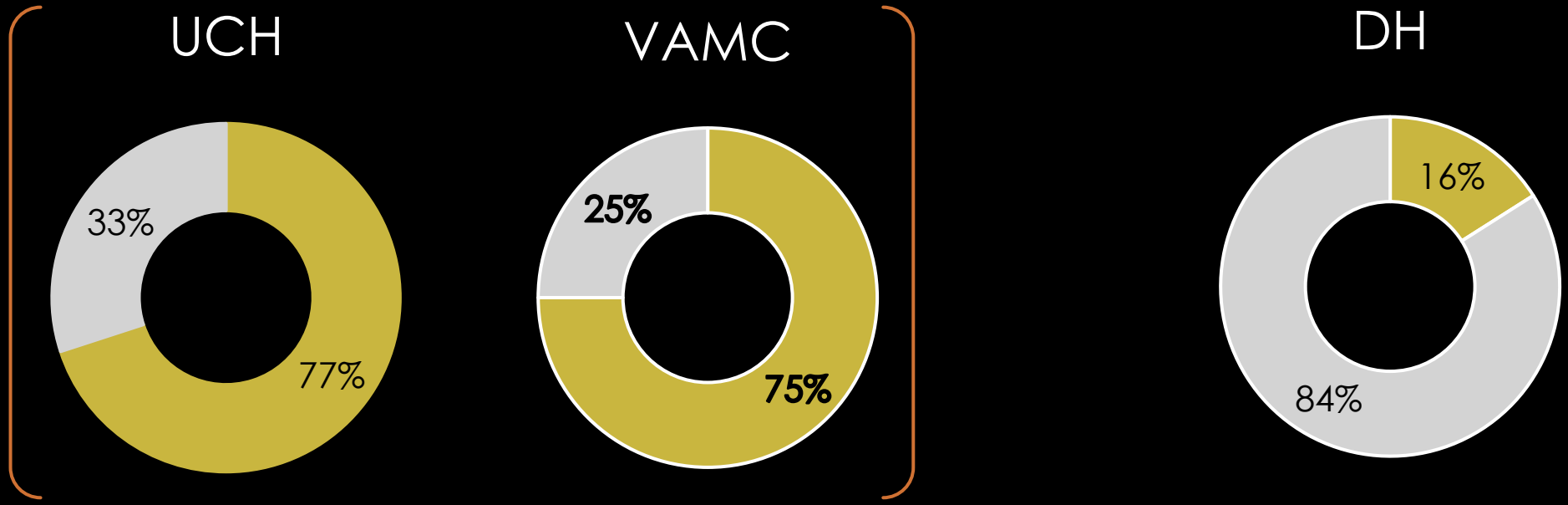
Control
Denver Health

- Access to nocturnists without formal process

Post Survey

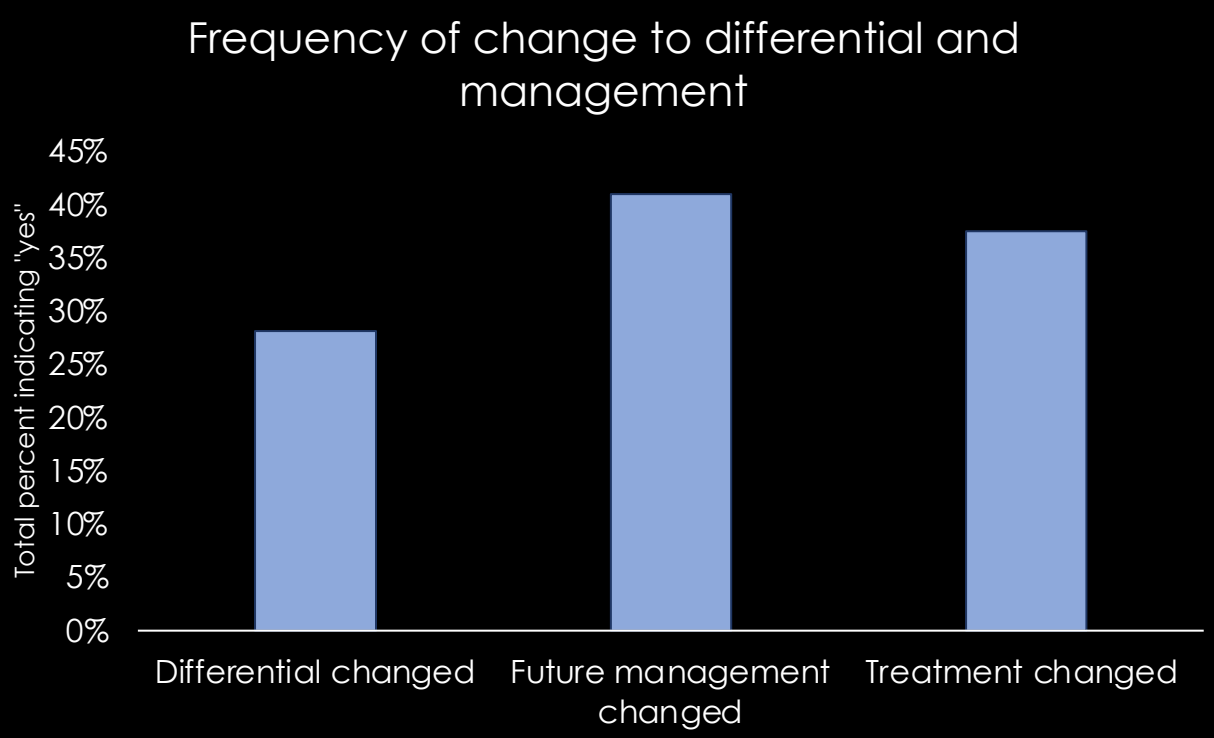
RESULTS

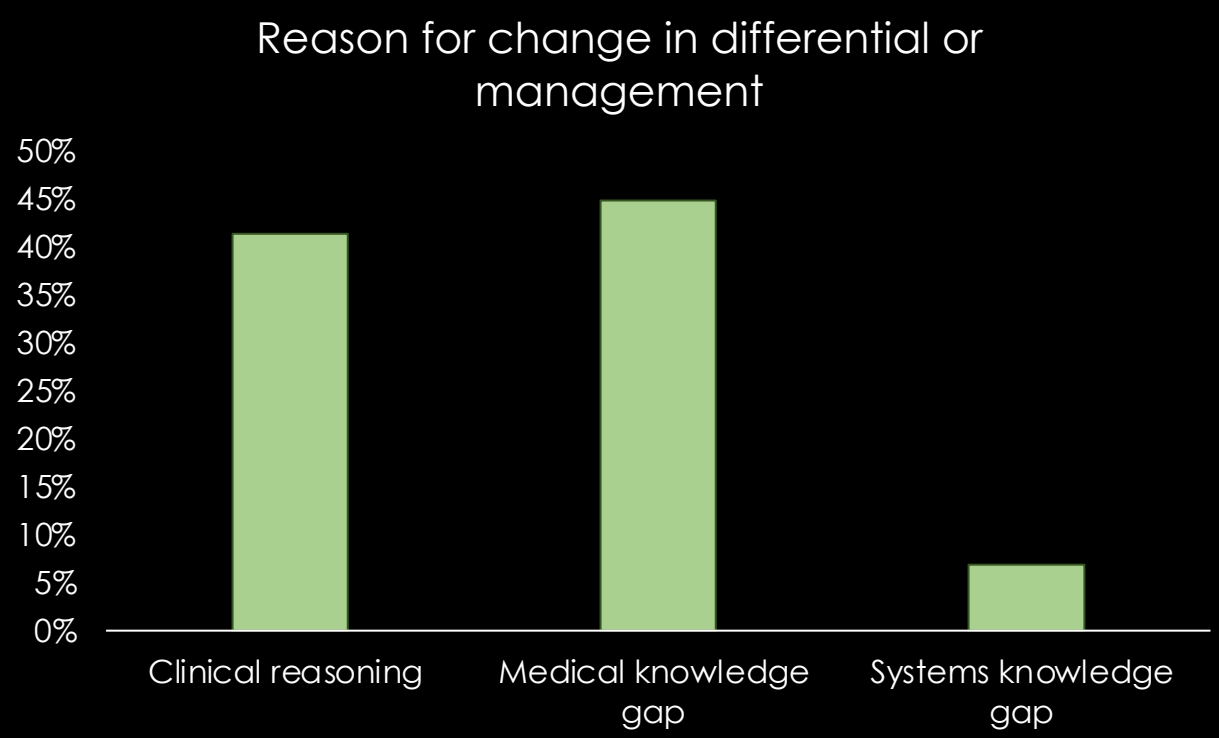
Intervention Sites



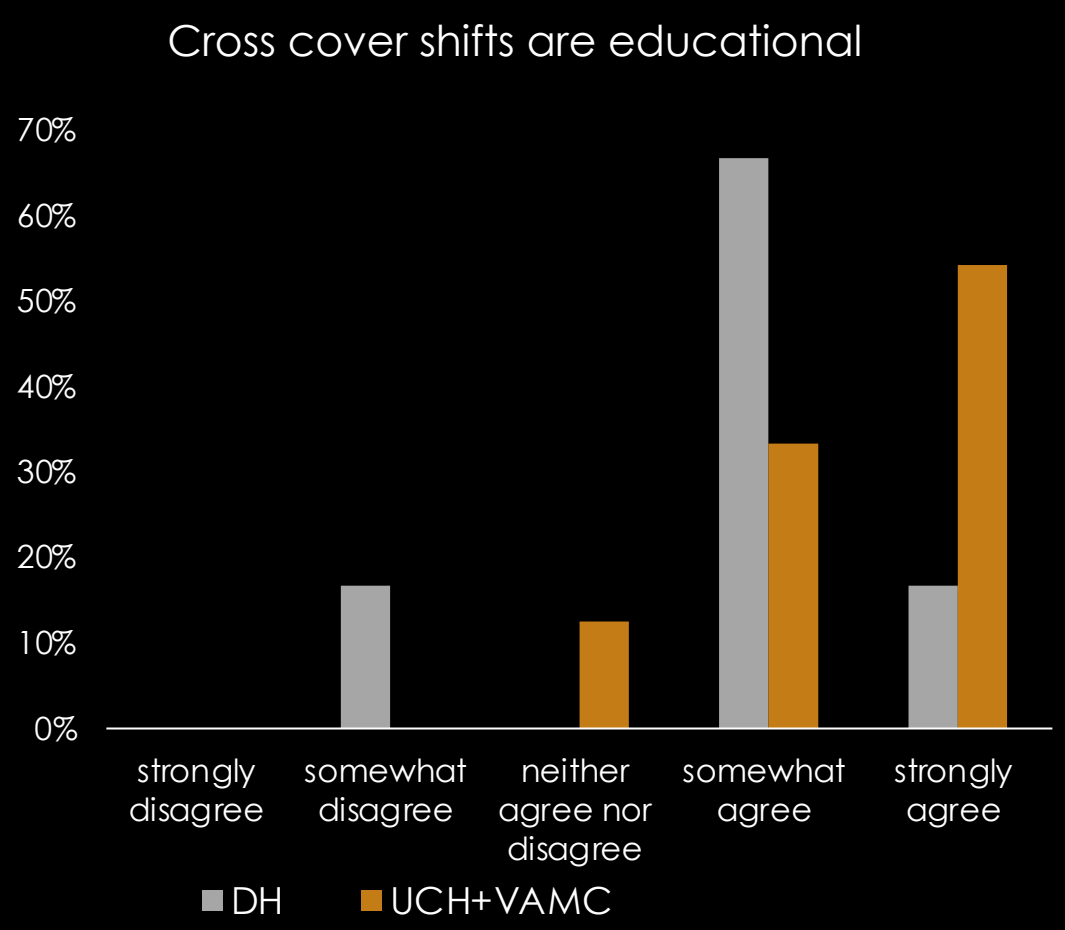
The intervention increased contact with nocturnists overnight. Only 16% of interns at DH spoke to a nocturnist overnight compared to 77% and 75% at UCH and VAMC, respectively.

RESULTS


Frequency of change to differential and management
Total percent indicating "yes"
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
Differential changed
Future management changed
Treatment changed


Reason for change in differential or management
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
Clinical reasoning
Medical knowledge gap
Systems knowledge gap

RESULTS



Selected Intern Feedback:

"…increased comfort with medical decision making."

"Very much appreciate, allowed me to talk through my decision-making process which is not always the case on cross cover shifts."

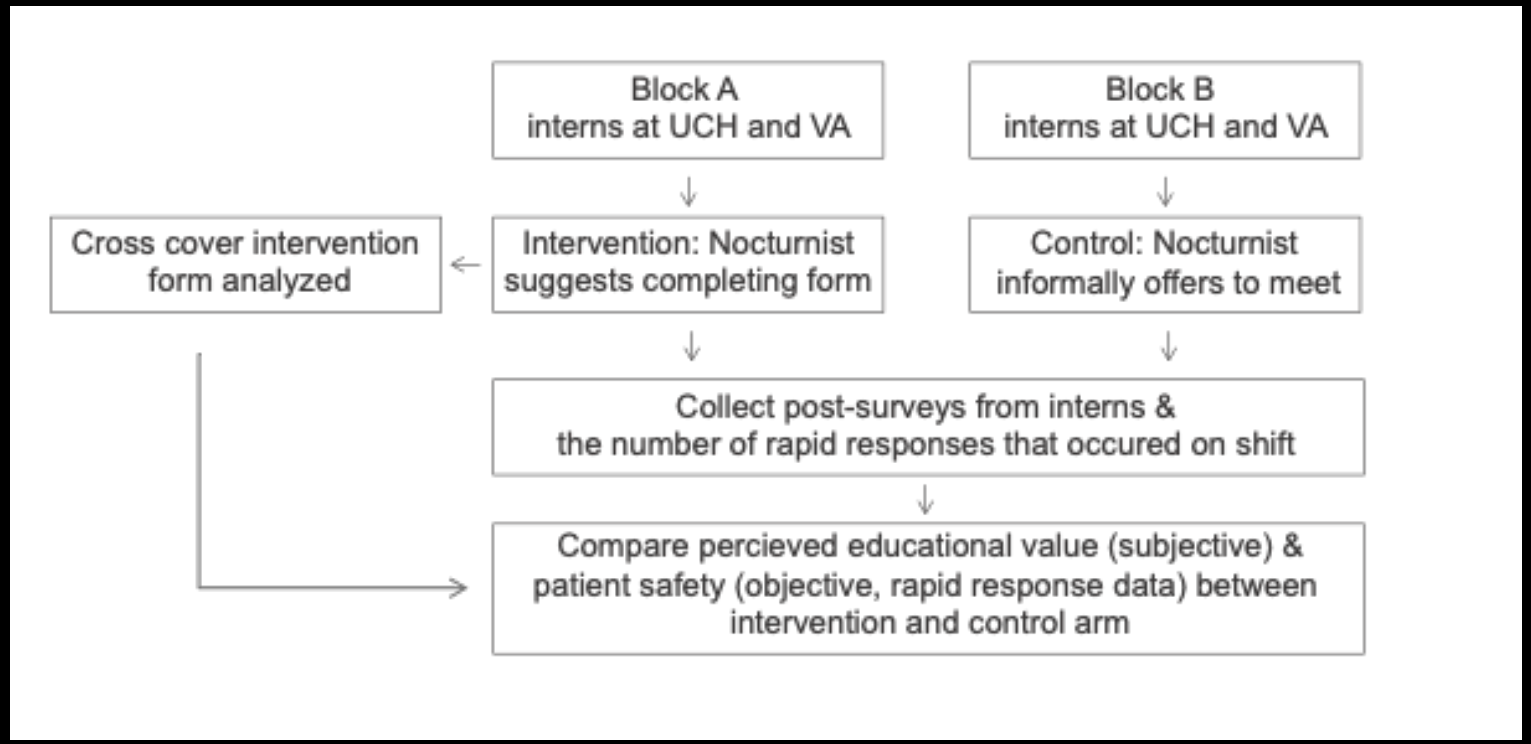
"…very helpful to go over management with attending at the end of the night"

CONCLUSIONS

A formal structure for intern-attending discussions on cross cover shifts increases both the perceived and real educational value of cross cover shifts.

Cross cover is an opportunity to support interns' clinical reasoning and medical knowledge leading to changes in patient care.

NEXT STEPS: ROBUST DESIGN TO ALLOW CONTROLLED COMPARISON OF INTERVENTION



NEXT STEPS

- Stratify data by intern experience
- Open-ended cross cover form
- Semi-structured interviews with interns
- Obtain rapid response data at UCH and VAMC

REFERENCES

1. DeRienzo CM, Frush K, Barfield ME, et al. Handoffs in the era of duty hours reform: a focused review and strategy to address changes in the Accreditation Council for Graduate Medical Education Common Program Requirements. Acad Med J Assoc Am Med Coll 2012;87(4):403–10.
2. Weltz AS, Cimeno A, Kavic SM. Strategies for Improving Education on Night-Float Rotations: A Review. J Surg Educ 2015;72(2):297–301.
3. Desai SV, Feldman L, Brown L, et al. Effect of the 2011 vs 2003 Duty Hour Regulation–Compliant Models on Sleep Duration, Trainee Education, and Continuity of Patient Care Among Internal Medicine House Staff: A Randomized Trial. JAMA Intern Med 2013;173(8):649.
4. Jasti H, Hanusa BH, Switzer GE, Granieri R, Elnicki M. Residents' perceptions of a night float system. BMC Med Educ 2009;9(1):52.
5. Peabody T. The Effect of Work Hour Restrictions on the Education of Orthopaedic Surgery Residents. Clin Orthop 2006;449:128–33.
6. Riesenberg LA, Leitzsch J, Massucci JL, et al. Residents' and attending physicians' handoffs: a systematic review of the literature. Acad Med J Assoc Am Med Coll 2009;84(12):1775–87.
7. Bricker DA, Markert RJ. Night Float Teaching and Learning: Perceptions of Residents and Faculty. J Grad Med Educ 2010;2(2):236–41.
8. Fogerty RL, Rizzo TM, Horwitz LI. Assessment of internal medicine trainee sign-out quality and utilization habits. Intern Emerg Med 2014;9(5):529–35.
9. Fogerty RL, Schoenfeld A, Salim Al-Damluji M, Horwitz LI. Effectiveness of written hospitalist sign-outs in answering overnight inquiries. J Hosp Med 2013;8(11):609–14.
10. Singh H, Thomas EJ, Petersen LA, Studdert DM. Medical errors involving trainees: a study of closed malpractice claims from 5 insurers. Arch Intern Med 2007;167(19):2030–6.
11. Gonzalo JD, Moser E, Lehman E, Kuperman E. Quality and safety during the off hours in medicine units: a mixed methods study of front-line provider perspectives. J Hosp Med 2014;9(12):756–63.
12. Howard-Anderson J, Schwab K, Quinn R, Graber CJ. Choosing Wisely Overnight? Residents' Approach to Fever. Open Forum Infect Dis 2017;4(2):ofx080.
13. Haber LA, Lau CY, Sharpe BA, Arora VM, Farnan JM, Ranji SR. Effects of increased overnight supervision on resident education, decision-making, and autonomy. J Hosp Med 2012;7(8):606–10.
14. DeFilippis AP, Tellez I, Winawer N, Di Francesco L, Manning KD, Kripalani S. On-site Night Float by Attending Physicians: A Model to Improve Resident Education and Patient Care. J Grad Med Educ 2010;2(1):57–61.
15. Lim H, Raffel KE, Harrison JD, Kohlwes RJ, Dhaliwal G, Narayana S. Decisions in the Dark: An Educational Intervention to Promote Reflection and Feedback on Night Float Rotations. J Gen Intern Med 2020;35(11):3363–7.
16. Lane KP, Chia C, Lessing JN, et al. Improving Resident Feedback on Diagnostic Reasoning after Handovers: The LOOP Project.J Hosp Med 2019;14(10):622–5.
17. Limes J, Callister C, Young E, et al. A Cross-Sectional Survey of Internal Medicine Residents' Knowledge, Attitudes, and Current Practices Regarding Patient Transitions to Post-Acute Care. J Am Med Dir Assoc 2021;22(11):2344–9.

QUESTIONS?