An Evidence-based Approach to Improving Intake and Output Documentation

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Background

Inaccuracy documenting intake and output is a national problem. The accurate documentation and maintenance of fluid balance charts constitute an integral part of nursing care. However, inaccuracies in fluid balance charting by nurses often occur. Inaccurate charting can result in delayed interventions, affecting the safety of the patients. Audits demonstrated that fluid intake charting in an acute surgical inpatient ward was highly inaccurate. Many expressions of dissatisfaction were evident among the medical healthcare professionals and patients regarding accurate fluid intake charting. Therefore, evidence-based measures needed to be implemented in order to improve the safety of patient care through improvement in recording of patient's intake.

Purpose/Objective

The main objective of this evidence-based utilization project was to improve the accuracy of fluid intake charting through patient involvement.

References: Liaw, Y. Q., & Goh, M. L. (2018). Improving the accuracy of fluid intake charting through patient involvement in an adult surgical ward: a best practice implementation project. JBI Database of Systematic Reviews and Implementation Reports, 16(8), 1709–1719. https://doi.org/10.11124/JBISRIR-2017-003683

Madu, A., Asogan, H., & Raoof, A. (2021). Education and training as key drivers for improving the quality of fluid balance charts: findings from a quality improvement project. BMJ Open Quality, 10(3). https://doi.org/10.1136/bmjoq-2020-001137

Methods

A literature search was performed using the search engines of Google scholar and search terms of accuracy of documentation regarding intake and output.

Following review of the literature the DMAIC process was utilized and a plan for implementation and measurement determined based on the literature.

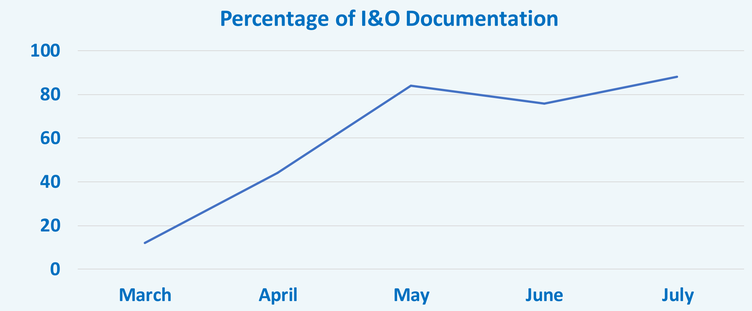
The intervention of implementing a nursing standardized protocol for all patients consisted of the following elements:

- Staff educational sessions performed weekly until all staff educated and all questions clarified. Pre/Post tests performed. Posters and PowerPoint used for teaching. Educational materials given.
- New flow sheet created
- Patient Education and Involvement. Utilizing educational materials and teach back method.
- Weekly documentation audits
- Staff and patient feedback was utilized
- All patients received a flow chart and reference guide attached. The nurse educated patients about self-reporting their amount of intake.
- All questions were clarified.
- During hourly rounding staff were encouraged to remind their patients to write down how much intake they have had in the last hour..

***The time period for intervention and outcome assessment was 03/15/2022- 05/31/2022.**

Results

Knowledge increased from 11% pre-education to 80% post education. Monthly audits for I&O documentation increased from 12% prior to interventions to maintenance of 70-80% post intervention. The interventions and education were extended to a similar unit(4S) which is also demonstrating improvement in weekly audits. In addition, patients reported increased satisfaction and accountability in their plan of care during leadership rounding.



Conclusion

Fluid record omission was reduced at the completion of the project. The project led to an increased awareness of the fluid record omission standards among patients, as well as physical assessment and fluid overload -among the nursing staff in the unit. Nurses expressed a better understanding of the significance. The findings demonstrate how evidence-based practice with focused education and the provision of relevant resources can have an immediate and positive impact on clinical practice.