

Implementation of Pump Integration and Administration Standardization of Chemotherapy Across a System



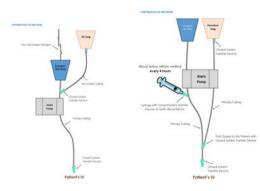
Melissa Banner MS, RN, OCN; Melissa Wright BSN, RN, OCN; Marie Asay MS, RN, OCN; Sunghee Lee MS, RN, OCN Huntsman Cancer Institute at the University of Utah

BACKGROUND

Huntsman Cancer Hospital is an NCI designated Comprehensive Cancer Center at the University of Utah that administers chemotherapy in outpatient and inpatient settings. To meet USP800 guidelines, the organization started implementation of pump integration across all departments that administered chemotherapy. During this process a wide variety of practices were identified. Although all processes were safe, the variation in practice created opportunities for error and did not support a unified effort. An effort was undertaken to standardize administration, preparation, and handling of chemotherapy and other hazardous drugs across the system. Other goals of this project included creating a more consistent experience for patients, and to provide better educational support for the health care system and affiliate partners

INTERVENTIONS

- Interdisciplinary meetings to standardize practice comprised of nursing, pharmacy, informatics, education, and hospital leadership representatives.
- New standardized practices for preparation, administration, and handling were created.
- Electronic medical records were updated to accommodate the drug library, nursing practice, and pump integration process.
- Comprehensive education roll out including online training modules, knowledge assessment, and skill competency verification for all methods of IV administration.
- Pharmacy adjusted preparation and delivery practices to accommodate changes in practice.
- USP 800 standards were followed in implementing the standardized practice.
- Pharmacy and nursing identified clinical experts to champion the new practice on each unit.



EVALUATION

 Initial knowledge assessment required a 100% score to pass and a re-assessment was completed six months later to measure knowledge retention.

Knowledge

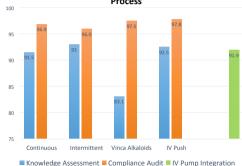
Compliance

 Creation of pump integration report for managers, which included nurse compliance as well as reasons for noncompliance. A bedside administration audit was conducted to verify adherence to new practice The interdisciplinary committee continued to meet a year after initial implementation to address any issues that arose and staff were encouraged to report issues through hospitals incident reporting system.

Process

As with any change in practice, obtaining staff compliance with the new process was an initial challenge. All staff were explained the benefits of standardization, the safety features of pump integration, and the impact on quality of care for patients.

Nursing Knowledge VS Compliance of Standardized Process



CONCLUSIONS

After reviewing the implementation process and evaluating it's effectiveness, both chemo standardization and pump integration were successfully adopted across the cancer hospital. The following are gaps that were identified and to be addressed in future plans:

- Competency verification has shown additional education is needed for Vinca
 Alkaloid administration
- Bedside audits showed areas with low administration volume were at higher risk for knowledge deficits and process non-compliance.
- Pharmacy staff turnover and construction constraints have caused inconsistencies in adherence to new practice.
- Wi-Fi connectivity issues due to increasing implementation of other medical devices reliant upon bandwidth, impacted pump integration with EMAR.

FUTURE PLANS

Future plans include insuring continued adherence as well as expansion of standardization to other areas that administer chemotherapy.

- Annual competency verification and bedside audit for all RN's that administer chemotherapy at Huntsman Cancer Hospital.
- Support training and education of non-oncology areas in the healthcare organizational system.
- Review and revise all policies related to chemotherapy
- Improve accessibility of all chemotherapy related information to staff
- Begin standardization for other routes of administration



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