



The Future of Rehabilitation Nursing Skills: Administering Chemotherapeutic Medications in Rehab

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Rehabilitation Nurses are able to care for the most diverse populations found in today's healthcare environments. We are also witnessing new practices, including using chemotherapeutic medications to treat non-malignant issues, especially for neurological dysfunctions.

However, insufficient resources may limit the ability to deliver these new treatments in an IRF. The Rehabilitation stay is interrupted in order to transfer to a unit that can administer the medication. Although experienced infrequently, this results in difficulties with insurance approval, continued progress, and re-admission rates for both the IRF and acute care hospital.

Traditional Response to Rehab Patient Requiring Chemo for Non-Malignancy:

- Treatment cannot be given on Rehab: no chemo-certified RNs
- Patient must be transferred to acute care unit (issues with bed availability, readmission rates, and insurance pre-authorization)
- Delayed Rehab admission, Program Interruption (if discharged less than 3 days), or delayed re-admission



IV Pump, PPE, and Supplies



Chemo Supply Cart

In response to this situation, our Nurse Manager and Nurse Educator arranged for several charge nurses to attend the Basic Chemotherapy and Biotherapy in Non-Oncology Units course (8 hours).

Once completed, the Nurse Educator worked with the outpatient infusion clinic to schedule each Rehab RN who attended class to be with a clinic preceptor and perform at least three chemotherapy infusions (~8 hours).

The team also worked with the Rehab Physicians, creating guidelines for communication surrounding delivery of these medications. The physician contacts the Nurse Manager or charge nurse prior to ordering the infusion to ensure a chemo certified RN is available to administer the medication.

Medication	Treatment for
Cyclophosphamide	Malignant diseases, SLE, vasculitis, nephropathy
Rituximab	RA, SLE, vasculitis, nephropathy, transplant rejection
Infliximab	Chron's, UC, RA
Thymoglobulin	Transplant rejection
Bortezomib	Multiple myeloma
Alemtuzumab	Transplant rejection, vasculitis, celiac disease
Mitoxantrone	MS

Many of these are primarily used to treat cancer, but can be given at lower doses or less frequently to work as immune system modulators.



Chemo-Certified Gloves, Gowns, and Masks



Spill Kit



Closed-System Transfer Devices

Once an infusion is ordered, a trained nurse is then scheduled as a chemo-dedicated RN for the duration of the infusion. The patient also is assigned to a primary nurse for all other care during the shift. Therapy is held for that day, but the patient typically can resume regular activities on the following day.

Administration amended annual staffing budgets to include a Free Charge Nurse Mon-Fri 7a shift in order to help cover for this new practice and other initiatives on the unit.

Barriers and Challenges Include:

- Referring departments unaware that this treatment is available in Rehab
- Timely knowledge of when medication is to be administered
- Orders for pre-meds and treatments for reactions are from PM&R MDs, while chemo is ordered by consulting service MDs
- Difficult to maintain skill set due to infrequent patient requirement

Within three months of identifying this growing need, we were able to begin delivering chemo and bio-therapies to Rehab patients.

- 10% of Rehab Center RNs are trained to deliver chemo and bio-therapies
- 20% of Rehab Center RNs have attended the course and will complete the training with a preceptor over the next few months

Patients are now able to remain on Rehab for their complete admission, helping improve patient, family, acute care team, and Rehab physician satisfaction levels.

Our nurses are satisfied and proud to deliver treatments not traditionally seen on Rehab, and now have the confidence to expand even further to meet our patients' needs.

UNC Rehabilitation Center is a 30-bed inpatient facility which has received full accreditation by the Commission on Accreditation of Rehabilitation Facilities (CARF). Our mission is to optimize the health and function of individuals with physical and cognitive disabilities through a patient-centered, interdisciplinary continuum of care. Our Rehabilitation RNs provide quality care and support while focusing on health education and promotion, including bowel and bladder retraining, managing skin health, and other medical management needs.

References:

- Polovich, M. & Giesecker, K. (2011). Occupational hazardous drug exposure among non-oncology nurses. *Medsurg Nursing*, 20(2), 79-85, 97.
- Polovich, M. (Ed.) (2011). *Safe handling of hazardous drugs* (2nd ed.). Pittsburgh, PH: Oncology Nursing Society.

Acknowledgements & Contact Information

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