

A QUALITY IMPROVEMENT INITIATIVE TO IMPROVE SCREENING FOR CIPN IN PATIENTS TREATED WITH NEUROTOXIC CHEMOTHERAPY AT A TERTIARY ACADEMIC MEDICAL CENTER

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INTRODUCTION

Chemotherapy-induced peripheral neuropathy (CIPN) can greatly diminish quality of life and lead to unwanted dose modification and even failure of treatment. CIPN is increasingly recognized as a potential problem that can be devastating, refractory, and hard to treat. No standardized measurement for CIPN exists and general agreement regarding the best way to assess and grade CIPN has not yet been reached.

Better assessment methods that can be directly compared with provider-based assessments as well as used in conjunction with provider history and examination and patient reported symptoms need to be developed.

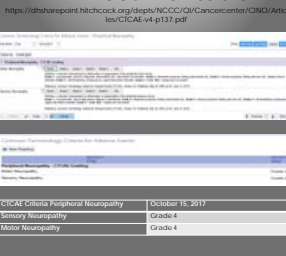
METHOD

Utilizing the Six Sigma DMAIC quality improvement process this project was undertaken to integrate screening for CIPN into the routine care of cancer patients receiving neurotoxic chemotherapy at risk for developing CIPN. The initial goal of the project was to develop and pilot a standardized process to identify cancer patients at risk for CIPN. The second phase was to develop standardized patient education on the potential for CIPN followed by regular assessment utilizing subjective and objective evidenced based assessment tools; the Total Neuropathy Score (TNSr) and the EORTC CIPN-20, and to document findings into the EMR.

RESULTS

- APRN staff were trained in neurological examination (TNSr) by attending neuro-oncologist
- Adopted standardized CIPN patient education material from the Research Advocacy Network
- Incorporated the NCI Common Toxicity Criteria Adverse Effects into EMR documentation
- Developed a process to ensure CIPN screening is done at several intervals (prior to treatment, mid-treatment, post-treatment)

NCI Common Toxicity EMR Documentation



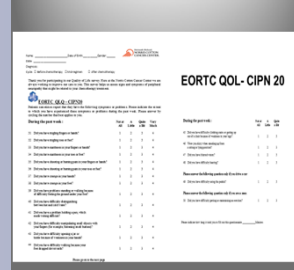
Total Neuropathy Score

System	Grade	Score	Weight	Subtotal
Sensory	4	4	1	4
Motor	4	4	1	4
Autonomic	0	0	1	0
Total				8

Patient Education



EORTC CIPN-20



CONCLUSIONS

The project demonstrates that the screening, assessment, and documentation of CIPN can be easily accomplished in the routine care of patients receiving chemotherapy.

FUTURE DIRECTIONS...

There is no single adequate diagnostic method that has been established to reliably diagnose or follow patients with cancer-related CIPN. One of the most important areas for future research and development for this area is the development of convenient, noninvasive, and easily administered diagnostic and assessment tools that clinicians can easily incorporate into practice. Also, the development of reliable endpoint definitions and assessment methods involving the treatment, prevention, and mitigation of neuropathic pain as primary outcomes is of considerable importance. The next phase of the project will be to establish validation of CIPN pretreatment screening using TNSr, NCI-Common Toxicity Criteria V.3 and EORTC-20 prior to neurotoxic chemotherapy for the prediction of clinically significant peripheral neuropathy as compared to published reports.

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