



2018 Glieberman Head and Neck Cancer Center Pilot Grant

Pilot study of using home-based sensors to assess patient reported outcomes among minority head and neck cancer patients

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Scientific Abstract:

The timely assessment of patient reported outcomes (PROs) represents a key component in caring for cancer patients. The definition of PRO includes any report of a patient's health status coming directly from the patient including physical symptoms of disease, complications of treatment, and overall psychological well-being. Clinical trials have found that early assessment of PROs can reduce patient symptoms, improve quality of life, and even extend survival. Unfortunately, we lack systems in current practice that routinely capture PROs for the majority of patients with cancer. This inability to assess PROs particularly impacts minority patients – who can suffer from language barriers, cultural differences, and health literacy issues.

This current study proposes to deploy the CYCORE (CYberinfrastructure for COmparative effectiveness REsearch) system among an ethnically diverse group of head and neck cancer patients receiving radiation. The morbidity of head and neck cancer coupled to the high symptom burden of treatment creates a profound unmet need in this patient population. The novel CYCORE system allows patients to enter PROs on a phone or tablet at home, and have their blood pressure, pulse, and weight assessed with wireless devices. This home-based patient information will flow instantly and securely into the CYCORE network. Healthcare providers will have the ability to continuously monitor their patients, and can intervene early to prevent adverse events. If this pilot study proves feasible we plan a large-scale rollout of the CYCORE system among patients with head and neck cancer with the ultimate goal of improving patient quality of life.