Maximizing Efficiency in Randomized Clinical Trials: A Decade of Visiontree ePRO Utilization for Patient Surveys

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1 INTRODUCTION

The healthcare industry has seen a significant shift towards patient centered care and the integration of technology to enhance the delivery of service. Visiontree is a comprehensive approach that integrates clinic workflow with research data collection using an electronic patient reported outcome (ePRO) platform.

- Background: Patient reported outcomes (PROs) are critical to healthcare research, providing insight into the patients' health and treatment outcomes.
- Problem: Despite the value of PROs, achieving high compliance rates can be challenging. Traditional methods of PRO collection often suffer from missing data and transcription errors, leading to inaccurate information.
- Significance: PRO data from clinical trials are frequently underreported. Providing a method to increase compliance can facilitate future publications.
- Objective: The aim of this proposal is to share the ePRO collection process for a randomized head and neck clinical trial.

- ePROs provide insight of how the patients' view their symptoms
- ePRO platforms can **decrease transcription error, increase compliance,** and **time savings**
- Visiontree, an industry leading, data-first ePRO platform**, maximizes patient compliant workflows** and data collection.

2 METHODS

Protocol title "*Phase II/III Randomized IMPT vs. IMRT for the treatment of Oropharyngeal Cancer of the Head and Neck*"

MD Anderson Symptom Inventory (MDASI), MD Anderson Dysphagia Inventory (MDADI), FACT-HN, Xerostomia (XQ), EQ-5D-3L and Work Productivity Index (WPAI:SHP).

440 patients across all sites

16 multi-sites

229 patients from MDACC

Materials: Patients use electronic devices such as smartphones, tablets and computers to access electronic forms. The Visiontree automated platform provides pre-built forms, automated reports and analysis tools.

Procedure: Visiontree supported the six pre-built PRO forms that automatically alerted patients to complete questionnaires at protocol specific timepoints (baseline, weeks 1-7 during treatment, recovery, every 3 months the first year, every 4 months the second year and annually through year 5). Automated Visiontree reminders were sent as a secondary method to collect data.

Data analysis: In this analysis the key outcome variable was compliance. Compliance is measured by the percentage of forms completed within a designated timeframe.

Compliance Rate = Number of subjects who complete all forms at a specific timepoint / Number of subjects expected to complete forms

3 RESULTS

Figure 1: Time Savings

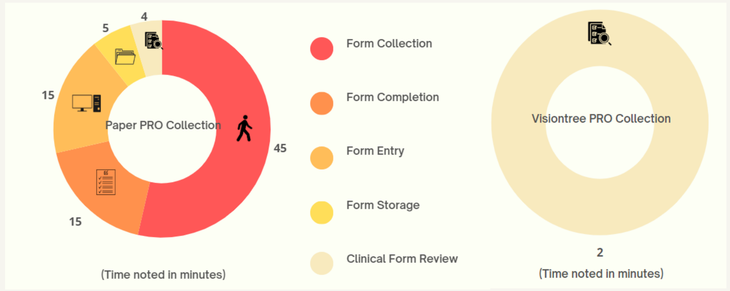


Figure 2: Form Compliance

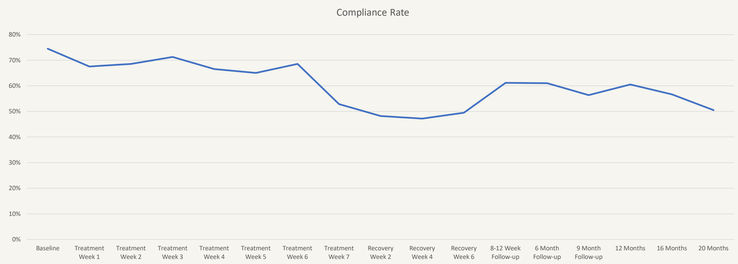
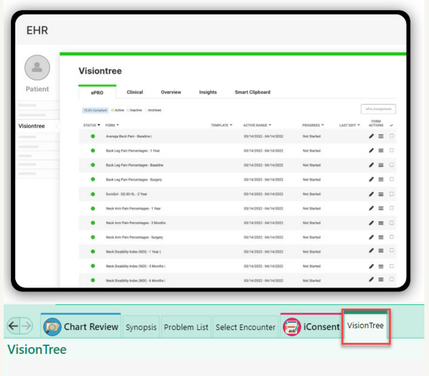


Figure 3: EHR Integration



4 DISCUSSION

The use of Visiontree ePRO provides real-time data collection, automated reminders, and interactive interfaces that engage the patient in the reporting process. The Visiontree system enhances patient engagement, facilitates remote monitoring and streamlines the analysis of patient-reported outcomes.

- Patient compliance: PRO compliance rates ranged from **51%-75%** from the start of treatment through month 20.
- Time savings: The Visiontree platform decreased the form collection time from an estimated 84 minutes to 3 minutes per patient form at each timepoint. This time savings can save ~23% of a research coordinator FTE.

Compare with previous research: Literature shows that patient compliance rates can widely range from ~ **25% to 85%.**

A study done in 2022 observed the rate of completion decreased with each additional timepoint captured.

	2022 RESEARCH LITERATURE	HN RANDOMIZED TRIAL
END OF TREATMENT	68%	53%
3 MONTHS	52%	61%
12 MONTHS	25%	60%

EHR Integration: Integrating Visiontree with our electronic health records (EHR) creates seamless interoperability between systems. (Figure 4)

- ePRO increases patient compliance by streamlining the collection process.
- Utilizing ePRO maximizes time saving and can reduce the cost for research staff.
- Epic integration maximizes the utility of PROs.

5 CONCLUSION

The use of electronic patient reported outcome measures has shown to maintain compliance through a ten-year randomized clinical study.

Visiontree ePRO platform offers a streamlined approach to collecting, completing and analysing patient reported outcomes.

The adoption of Visiontree ePRO holds great promise for transforming the way patient-reported outcomes are collected and utilized in healthcare settings.

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