Roles-Based Event Notification in the Clinical and Research Setting

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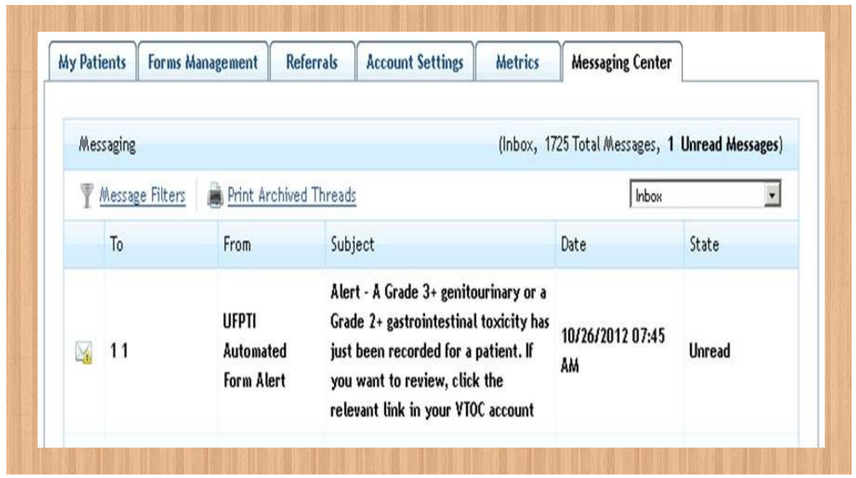
Purpose

Tracking treatment-related adverse events (AEs) and hospitalizations is essential to improving patient safety during any research trial. The purpose of this project is to highlight how a roles-based notification system for reporting AEs has helped optimize the clinical and research real-time workflow at the University of Florida Proton Therapy Institute (UFPTI).



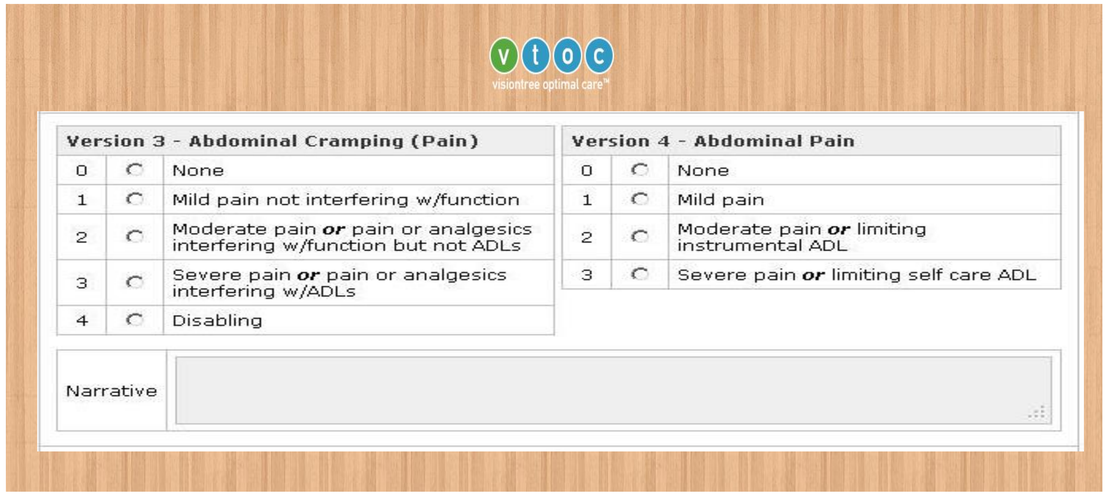
Methods

A proven, secure, cloud-based patient and provider portal system called VisionTree Optimal Care (VTOC) v4.1 is used to collect, track, and mine data from all UFPTI patients, including those enrolled onto protocols. At UFPTI, almost 97% of the patients treated are enrolled onto an Institutional Review Board (IRB) approved registry trial. VTOC is customized for UFPTI's workflow, and is configured to support AE management for various protocols and disease sites.

A customized follow-up form is completed by the treating physician and nurse during a patient's routine on-treatment or follow-up visit. When an instance of a treatment-related AE with Grade 3+ toxicity (based on Common Terminology Criteria of Adverse Events guidelines with Grade 0-5), or a hospitalization is recorded, the roles-based notification system is triggered. The Lead Research Coordinator, the Nursing Manager, and Biostatistician at UFPTI have assigned roles within VTOC that grants them the ability to receive real-time, anonymized email notifications that one of these events has just been recorded. Those VTOC users will be able to see the precise details about the adverse event only after they've logged in to the VTOC system and opened a secure message in the Message Center.

Results

The roles-based notification application has allowed the research team to detect treatment-related AEs and hospitalizations promptly and has also allowed real-time monitoring for potential data errors. For example, one Grade 3 gastrointestinal adverse event led to a maximum radiation dose reduction per a prostate protocol. A notable data entry error was a treatment-related second malignancy (Grade 3) that was recorded during a follow-up visit. The roles-based notification allowed the research team to investigate and determine it was a second primary cancer, not a treatment-related malignancy. Both examples allowed the patient's health care team to be more involved in the patient's care through quality alerts triggered by roles and form completion.



Conclusions

At UFPTI, our goal is to deliver the highest quality cancer care possible to our patients. Principal Investigators and research coordinators understand that AE reporting can improve patient safety and assist with regulatory compliance when information reaches decision makers in a quick and efficient manner. By applying the roles-based notification application, we have an increased awareness of the types of events reported and are allowed access to real-time data.