Streamlined Workflow for Tumor Board Preparation, Presentation, and Documentation Allows for Concurrent Clinical Trial Matching Review

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1. Background

Newly diagnosed and recurrent cases of head and neck cancer are discussed during weekly multidisciplinary tumor boards at Robert H. Lurie Comprehensive Cancer Center of Northwestern University (Chicago, IL). Case preparation and presentation at tumor board is an opportune time for consideration of clinical trial eligibility. Given that initiation of treatment can discount a patient for clinical trial eligibility, systematic review, and consideration of eligibility status for treatment trials open at the institution during tumor board review ensures that all treating clinicians are aware of and agree to support the patient's consideration of treatment trial enrollment.

2. Goals

Our goal was to systematically consider newly diagnosed and recurrent head and neck cancer cases for eligibility for treatment clinical trials open at the treating institution during multi-disciplinary tumor board meetings.

3. Solutions and Methods

A new artificial intelligence-based technology was piloted to aid the preparation, presentation, and documentation of tumor board case review. Implementation of the technology streamlined the tumor board workflows and allowed time for the screening, consideration, and documentation of clinical trial eligibility concurrently with tumor board review. Cases presented at tumor board were considered for 12 treatment trials open for head and neck cancer at the treating institution. Trial eligibility was recorded within the new tool for presentation. Documentation of the tumor board discussion then captured clinical trial consideration and recommendation based on the multi-disciplinary review.

4. Outcomes

From July 26, 2022 to March 13, 2023, a total of 32 tumor boards were prepared, presented, and documented using the new technology. During this time 267 cases were reviewed, which represented 210 unique patients. Of the 210 patients, 34 (16 percent) were screened eligible for at least one open treatment clinical trial at the treating institution. There has been high user satisfaction reported with the new technology which allowed additional time for clinical trial eligibility screening.

In calendar year 2022, a total of 11 patients were enrolled in head and neck cancer treatment trials. With the new technology in place and completely operational since the beginning of the year, there have been 6 patients enrolled in the first quarter of 2023. Assuming similar accrual over the next 3 quarters, this results in an expected year-end total accrual of 18-24 patients, an increase of 160-220 percent over the prior year.

5. Lessons Learned and Future Direction

Systematic review of newly diagnosed and recurrent patients for clinical trial eligibility during tumor board review can give patients optimal opportunity for participation. Future expansion of the new

technology to also assist with trial eligibility evaluation is planned. In addition, the tool will in the future provide aggregate reports that capture and track trial consideration over time.