From Exception to Expectation: A Tiered, Nationwide Virtual Tumor Board

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Background

Multidisciplinary tumor board (MTB) review is associated with lower mortality for patients with cancer, yet access is limited by logistics and cost.

The American Society of Clinical Oncology (ASCO) and the Community Oncology Alliance (COA) recently added multidisciplinary development of initial treatment plans to the Oncology Medical Home (OMH) standard.[1]

We describe a virtual MTB (vMTB) designed to offer structured multidisciplinary input to **every patient** enrolled in a nationwide ASCO Certified Virtual Cancer Clinic (VCC)

Methods

vMTB design

vMTB is a continuous, hybrid asynchronous and synchronous review program embedded within the VCC available free of charge to patients as a benefit through employer, union and commercial payor plans.

Multidisciplinary experts spanned general and subspecialty medical, surgical, and radiation oncology fields, including specialists in cancer genetics, rehabilitation medicine, palliative care, nutrition, and clinical psychology, and other relevant fields (e.g., radiology, pathology).

Evaluation design

We conducted a qualitative, descriptive implementation analysis of a vMTB. Operating procedures, case-preparation templates, and outcome categories were designed to align with the OMH standard, patient preferences, and clinician needs.

Cohort

Consecutively enrolled patients with a completed vMTB review between December 15, 2025, and September 15, 2026, were evaluated retrospectively.

MAIN FINDING

A standardized, tiered virtual tumor board makes multidisciplinary review feasible at national scale, providing a model for operationalizing OMH multidisciplinary care standards.

Results: Three design innovations

1 Patient-anchored care

Oncologist-led VCC team Each patient establishes care → **Telemedicine intake** Cancer and medical details, clinical status, goals of care, health-related social needs, and questions for the vMTB

2 Structured, tiered review

AI-assisted record synthesis verified by clinicians → **Oncologist triages** based on clinical complexity, urgency, and decision impact → **Asynchronous** input *or* **Weekly live** vMTB

Structured assessment: workup completeness, diagnostic and staging accuracy, guideline concordance of treatment, clinical trial opportunities, financial toxicity, and psychosocial and supportive care

3 Actionable recommendations with a clear owner

Plain-language recommendations with references for the clinical team → **VCC clinicians, licensed nationwide own follow-up:** answer questions, communicate with the treating team, and assist with care coordination; when the patient chooses, provide or manage care directly as appropriate for telemedicine.

Collaboration with local care

vMTB reports are documented in the chart, shared with the patient and local treating team, and discussed in follow-up visits and peer-to-peer conversations.

The VCC team collaborates with the patient and their brick-and-mortar clinicians for care delivery.

Results: vMTB reviews

109 patients

112 vMTB reviews

100%

had documented clinical trial eligibility evaluation and guideline-concordance assessment of prior, current, or planned treatment.

47 of 109 patients (43%)

enrolled before starting any treatment; vMTB could inform initial workup and treatment planning

Among these 47 patients, the vMTB:

18 / 47 (38%)

Recommended additional guideline-concordant studies to inform diagnostic workup and staging

15 / 47 (32%)

provided complex treatment decision support

Conclusion

AI-assisted case preparation, oncologist-led triage, and clear ownership of recommendations make multidisciplinary review feasible at national scale — a model for operationalizing OMH multidisciplinary care and other quality standards.

Next: prospective evaluation of clinical outcomes, recommendation-adoption, and economic outcomes, and of patient and local care team satisfaction.

Reference

1. Woofter K, et al. Oncology Medical Homes: ASCO–Community Oncology Alliance Standards. *JCO Oncol Pract*. 2026 Mar;22(3):365–374.

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