Introduction: Optimal application of EGFR antibodies across the continuum of care in metastatic colorectal cancer (mCRC) is critical to achieve the best patient outcomes. A good understanding of the implications of current evidence on treatment beyond progression and re-challenge is important in informing clinical decision making. This study determined whether online continuing medical education (CME) could increase knowledge and competence related to applying best practices for RAS screening and monitoring, and selecting the right treatment approach for the individual patient across the continuum of care.

Methods: A 30-minute online video roundtable discussion between 3 experts was launched for countries outside the United States in March 2017, with data collected until June 2017. Educational effect was assessed with a repeated-pairs pre-/post-assessment study design, in which each individual participant served as his/her own control. 3 multiple-choice, knowledge questions and 1 self-efficacy, 5-point Likert scale (confidence) question were analyzed. Chi-squared test assessed pre- to post-assessment change (5% significance level, \( P < .05 \)). Magnitude of change in total number of correct responses overall, and for each question, were determined with Cramer’s V (effect size: \(< 0.05\) none/minimal; \(0.06-0.15\) small, \(0.16-0.30\) medium, \(> 0.30\) large).

Results: 141 oncologists completed both pre- and post-assessments. Baseline understanding was modest with 39-64% of participants identifying the correct answer for each question. Overall, a medium education effect was observed (\(V = 0.212, P < .001\)). The number of participants answering 3/3 questions correctly increased from 16% to 41% from pre- to post-assessment. Specific improvements included: identification of the advantage of liquid biopsy for assessment of RAS status to inform 2nd and further line treatments (95% improvement, \(P < .001\); \(V = 0.373\)), identification of the need for RAS and other mutation testing post-progression on 1st line EGFR inhibitor combined with chemotherapy to inform treatment decisions (17% improvement, \(P = 0.038\); \(V = 0.123\)), identification of the potential to use cetuximab combined with irinotecan as a treatment option in a patient that had previously progressed on cetuximab + chemotherapy then bevacizumab + chemotherapy in the 1st and 2nd lines, with a confirmed RAS WT tumour (25% improvement, \(P = 0.022\), \(V = 0.137\)). 27% of participants reported increased confidence in using RAS mutational testing to inform treatment decisions for mCRC that is progressing.

Conclusion: This on-demand, online video roundtable discussion resulted in a positive education effect and increased confidence amongst the participants. However, the data indicate that there remains a persistent educational need with less than half of participants answering all 3 questions correctly post-assessment. Online medical education is valuable in supporting the application of best practice, as well as identifying areas of continued educational need.