Introduction: Prior to full clinical implementation of KRAS gene status determination of late stage colorectal cancers (CRC) in 2013, KRAS testing was done as a part of diagnostic workup at some medical facilities. Collection of the KRAS biomarker is now routine for this subset of CRCs. We wanted to determine the extent of KRAS documentation in tumor registry abstracts for a period prior to the implementation of the KRAS test.

Methods: Data are from the Surveillance, Epidemiology and End Results (SEER) Alaska Native Tumor Registry, a population-based registry which includes AN people living in Alaska at the time of cancer diagnosis. We identified 359 CRCs diagnosed during years 2009-2013 and treated at a single facility. Of 359 CRCs, 100 were identified as late stage disease at the time of diagnosis as defined by two variables, SEER summary stage 2000 for distant disease and/or Collaborative Stage code for metastatic disease. We reviewed in-house and outside lab pathology reports and medical records for evidence of KRAS testing and compared findings with the tumor registry abstract.

Results: Of the 100 late stage CRCs, 57% had a KRAS test performed. Approximately half of the CRC tumors tested were shown to have the KRAS wild type gene. Nearly 20% of KRAS test results (11 of 57) were not coded or noted in the tumor registry record but found through re-review of medical records. Seventy patients received chemotherapy, but most often this was noted to be for palliative care. We found reasons for not testing KRAS gene status and/or not administering chemotherapy for 16 people who either refused, died prior to treatment, or for whom chemotherapy was contraindicated. KRAS testing of late stage CRC increased to 76% in 2013.

Conclusions: These results suggest that more than half of late stage colorectal cancers were KRAS tested during years 2009-2013. Nearly 20% of KRAS results were not documented or coded in the tumor registry abstract. KRAS testing increased for late stage CRC 2013 but testing is performed at laboratories outside of the hospital. We found the results are not always included in the original path report. Tumor registry abstractors should note that KRAS testing is performed for most late stage CRCs, and to look for evidence of KRAS testing and results. Medical record documentation is needed for all patients who refuse chemotherapy, for whom chemotherapy is contraindicated or for patients who have died prior to treatment to improve our documentation of this subclass of CRC treatment.