103 respondents (47%) were familiar with the results of both the randomized Trans-Kim E. and Murphy J.D. (2016) Preoperative short-course chemoradiotherapy (CRT) versus long-course chemoradiotherapy (CF-CRT; 45 to 50.4 Gy in 25 to 28 fractions with concurrent 5-fluorouracil-based chemotheraphy), when followed by surgery 4 to 8 weeks later [2,3]. In light of these results from randomized phase III trials, we hypothesized that physicians with knowledge of these key trials would embrace SC-CRT, but reimbursement barriers may influence the actual clinical practice. We invited practicing U.S. radiation oncologists to complete an IRB-approved anonymous online survey in Nov. 2016 querying background characteristics, self-assessed attitudes toward SC-CRT and familiarity with key trials using Chi-squared. Respondent characteristics were tested for associations with respondents’ self-assessed attitudes toward SC-CRT and familiarity with key trials using Chi-squared. Respondents were classified as SC-CRT supporters if they marked any of the following: “SC-CRT and CF-CRT are equivalent, but reimbursement is higher for CF-CRT,” “SC-CRT and CF-CRT are equivalent, but CF-CRT is more accepted,” “I’m a strong supporter of SC-CRT and preferentially use it.” A p-value of less than 0.05 was defined as statistically significant. R (version 3.3.3 [2017-03-06]) was used for all data analysis. We thank the respondents who have taken the time to participate and complete our survey. This research was supported by OHSU (KL2-UL1-TR000046-01). Only a small minority of radiation oncologists preferentially use SC-CRT for LARC, despite several randomized trials showing SC-CRT to be comparable to CF-CRT; 42% of US radiation oncologists do not support SC-CRT in the setting of almost half of respondents claiming familiarity with both aforementioned trials. The reasons cited by our respondents favoring CF-CRT were shown incorrect by randomized clinical trials. The Trans-Tasman trial did not find a statistical difference between SC-CRT and CF-CRT groups in terms of difference in sphinctor preservation [2]. A survey published a year ago by Mowry and colleagues revealed that 96% of radiation oncologists favored CF-CRT, whereas we found 58% favoring CF-CRT, which is still the majority of radiation oncologists [4]. This may be related to the timing around the publication of the Polish Colorectal Study results showing improved survival in patients randomized to SC-CRT. Kim and Murphy showed by 2013, less than 1% of rectal patients received SC-CRT despite key trials [5]. The US radiation oncology reimbursement system may influence radiation oncologists’ preference of CF-CRT versus SC-CRT. However, maybe there is another barrier as to why SC-CRT supporters would still prefer CF-CRT. Lag between new fractionation trends established by clinical evidence and adoption by physicians highlights the need to educate physicians in real time in order to change current patterns of care for rectal cancer patients.