We present here an experience with this technology in cancer treatment decision support.

**Methods:** WFO was used to obtain treatment recommendations of cases that were previously evaluated by a MDT at a major cancer center in India between 2014 and 2016. A comparison was made between the oncology advisor’s recommended treatment and that of the tumor board. Treatment concordance was defined as a tumor board recommendation falling into the oncology advisor’s categories of “recommended” or “for consideration” treatments. All non-concordant cases (n = 33) were re-presented to the tumor board in a blinded fashion in 2016 to address time of evaluation differences between the tumor board and the oncology advisor. Results are presented as the proportion of concordant cases.

**Results:** From 2014-2016 we had 126 colon cancers & 124 rectal cancers. Of colon 62 & 64 were non-metastatic & metastatic respectively, whereas in rectal cancer it was 93 & 31 respectively. Mean age of the patient was 55 years. The overall concordance at first analysis was 87%. At sub group analysis in colon (85% vs 77%) & rectum (97% vs 81%) & Overall (92% vs 78%) non-metastatic cases had higher concordance level than metastatic cases (Table1). There were 31 cases which were non-concordant that were re-challenged to MDT. After second review the overall concordance level improved from 87% to 95%

**Conclusions:** Artificial intelligence treatment recommendations with Watson for Oncology showed high levels of concordance with a multidisciplinary tumor board.

This cognitive computing technology holds much promise in helping oncologists make information intensive, evidence based treatment decisions. These findings are encouraging for the use of this technology. Additional investigations are needed to understand concordance in settings where cancer expertise and treatment options may differ.

**Legal entity responsible for the study:** Ethics Board Committee, Manipal Hospitals Bangalore.

**Funding:** Has not received any funding.

**Disclosure:** All authors have declared no conflicts of interest.