

## **Impact of bevacizumab (bev) on overall survival (OS) in patients (pts) with metastatic colorectal cancer (MCRC): A population based study**

*Renouf D, Lim HJ, Villa D, Gill S, Blancke CD, O'Reilly SE, Kennecke H, British Columbia Cancer Agency, Vancouver BC Canada*

### **Objective:**

As of 2003, irinotecan or oxaliplatin in combination with fluorouracil was standard treatment for MCRC in British Columbia (BC). The addition of bev to chemotherapy (CT) was approved in BC in 2006. We compared OS between referred pts diagnosed with MCRC in 2003/2004 (pre-bev era) and 2006 (bev era).

### **Methods:**

All pts diagnosed with MCRC in 2003/04 and 2006 and referred to the BC Cancer Agency (BCCA) were included. The BCCA is a cancer network with centers throughout BC, ≈60% of MCRC pts in BC are referred to the BCCA. Systemic therapy (ST) is centrally funded and treatment data was obtained from the pharmacy database. The primary endpoint was OS of all pts within each cohort. Secondary endpoints were OS in pts treated with ST, and in those not treated. Kaplan Meier method was used for survival analysis. Subgroup analysis based on age was performed.

### **Results:**

1417 pts were included: 969 from 2003/04, and 448 from 2006. Median age at diagnosis of MCRC was 68y in 2003/04 and 69y in 2006. Median follow up time was 47.3 and 21.4 mos respectively. Between 2003/04 and 2006 the proportion of pts treated with ST for MCRC increased from 61.1% to 67.6% ( $p=0.02$ ). Proportion of pts who received irinotecan, oxaliplatin and fluorouracil did not change (24.7% to 23.7%, ( $p=0.68$ )). Proportion of pts who received bev increased (5.9% to 30.6%,  $p<0.001$ ). Median OS significantly improved for the entire cohort (13.8 to 17.3 mos,  $p<0.001$ ). Median OS for pts who received ST for MCRC improved (18.6 to 23.6 mos,  $p=0.001$ ). Median OS for pts who did not receive ST did not change (6.1 to 5.9 mos,  $p=0.65$ ). Of pts who received ST, the proportion who received bev increased in pts  $<70$  (12.7% to 58%,  $P<0.001$ ) and in pts  $\geq 70$  (3.6% to 22.7%,  $p<0.001$ ). Median OS for pts  $<70$  who received ST for MCRC improved (20.3 to 26.5 mos,  $p=0.002$ ). Median OS for pts  $\geq 70$  who received ST for MCRC improved (16.5 to 19.9 mos), but this was not significant ( $p=0.16$ ).

### **Conclusions:**

In this population based study, median OS for MCRC significantly increased between 2003/04 and 2006. The improvement in survival appears to be limited to pts treated with ST for metastatic disease. The main difference in ST has been the addition of bev. On a population basis, the addition of bev to CT is associated with a significant improvement in OS in MCRC.