

## **Supplemental Materials for**

### **Association of preoperative anemia and perioperative allogenic red blood cell transfusion with oncologic outcomes in patients with non-metastatic colorectal cancer**

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Supplemental Table 1: Published studies examining preoperative anemia or perioperative transfusion in non-metastatic colorectal cancer using multivariate analyses

Year	Main variable	Author	Location	N	Anemia (%)	Anemia definition (g/dL)	Transfusion (%)	Transfusion Definition	Oncologic outcomes	OS	RFS
									Variable	Hazard ratio	Hazard ratio
2004	<b>Anemia</b>	van Halteren <sup>[38]</sup>	Rectum	144	15.2	7.4	–	–	Non-anemia	0.35*	–
2006		Berardi <sup>[14]</sup>	Rectum	317	–	12	–	–	Non-anemia	–	0.29*
2017		Egenvall <sup>[8]</sup>	Colorectal	417	52	M:13, F:12	–	–	Anemia	2.06*	NS
2017		McGrane <sup>[10]</sup>	Rectum	273	23	12	–	–	Anemia	1.73*	–
1992	<b>Transfusion</b>	Tartter <sup>[46]</sup>	Colorectal	339	–	–	32.4	During Hospitalization	Transfusion	–	NA*
2005		Miki <sup>[47]</sup>	Colorectal	117	–	–	29.9	NA	Non-transfusion	0.102*	–
2013		Ghinea <sup>[24]</sup>	Colorectal	201	–	–	33.8	Op day ~ Hospitalization	Transfusion	NS	NS
2015		Li <sup>[41]</sup>	Colon	1075	–	–	57.1	NA	Transfusion	2.6*	–
1993	<b>Anemia + Transfusion</b>	Tang <sup>[45]</sup>	Colorectal	725	14.5	10	65.1	During Hospitalization	Anemia	–	NS
									Transfusion	–	NS
2006		Jagoditsch <sup>[44]</sup>	Rectum	597	51.5	14	27.6	Op day ~ Hospitalization	Anemia	NS	NS
									Transfusion	NS	NS
2014	Talukder <sup>[40]</sup>	Colorectal	1370	36.5	12	30.9	Intraoperative	Anemia	NS	NS	
								Transfusion	1.31* (1.33)**	1.37*	

								Perioperative (pre/intra/post)	Anemia	NS	NS
									Transfusion	NS	1.26*
2015		Kaneko <sup>[42]</sup>	Colorectal	108	–	–	21.6	NA	Anemia	NS	–
									Transfusion	3.16*	–
2017		Morner <sup>[9]</sup>	Colorectal	496	51.8	M:13, F:12	40.1	Operation± 24hrs	Anemia	2.3*	1.7*
									Transfusion	NS	NS
Current study		Kwon	Colorectal	1003	46.7	M:13, F:12	29.4	Op day~ Hospitalization	Anemia	NS	NS
									Transfusion	1.55*	1.65*

OS, overall survival; RFS, recurrence-free survival; M, male; F, female; NS, not significant; NA, not available; WHO, World Health Organization

\* Statistically significant  $p < 0.05$

† cancer-specific survival