

**CORRECTION**

# Correction: External validation of risk prediction models for incident colorectal cancer using UK Biobank

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Since the publication of this paper, the authors have identified an error in the code they used in Stata to compute the Wells risk score for men. With the correct code, the performance of the Wells risk score is improved. The correct values are included in the updated versions of Table 3, Fig. 1 (Fig. 1A), Fig. 2 (Fig. 2A) and Supplementary Table 3 provided here. The Wells risk score is now one of the best performing models in men as well as in women. This does not change the overall conclusions of the analysis but in all places in the paper where reference is made to the best performing models in men, the correct list is Tao, Drive, Ma and Wells.



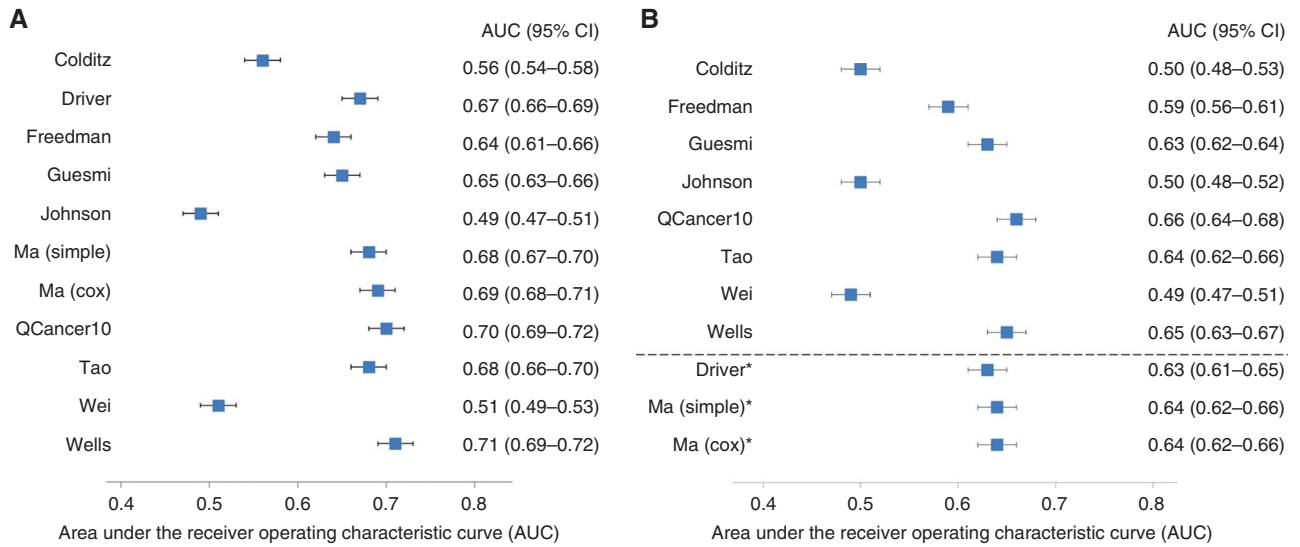
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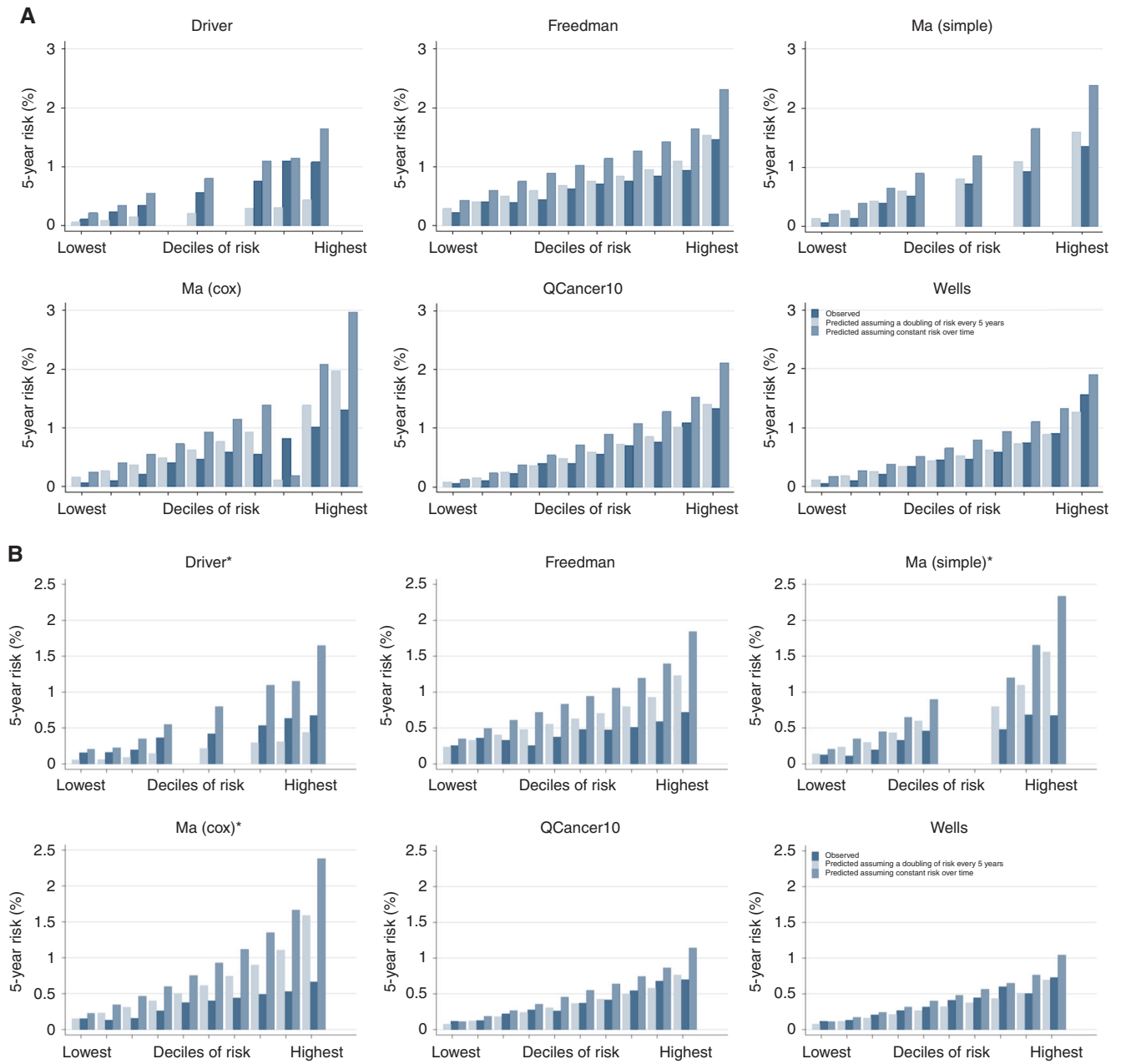
**Table 3.** Discriminatory performance measures for each of the risk models for 5 year risk of developing colorectal cancer in men.

	<b>Colditz</b> n=139,257 n = 761	<b>Driver</b> n=167,762 n = 946	<b>Freedman</b> n=101,530 n = 685	<b>Guesmi</b> n=168,825 n = 961	<b>Johnson</b> n=169,722 n = 965	<b>Ma (simple)</b> n=150,386 n = 830	<b>Ma (Cox)</b> n=150,386 n = 830	<b>QCancer10</b> n=158,024 n = 884	<b>Tao</b> n=149,693 n = 825	<b>Wei Y-S</b> n=160,256 n = 898	<b>Wells</b> n=140,917 n = 764
<b>Top 10%</b>											
Sensitivity	13.8	20.2	21.5	11.1	12.2	22.5	24.7	24.9	26.4	14.5	28.7
Specificity	90.0	90.1	90.1	90.0	90.0	90.1	90.1	90.1	90.1	90.0	90.1
LR+	1.38	2.03	2.16	1.11	1.22	2.27	2.49	2.51	2.67	1.45	2.90
LR-	0.96	0.89	0.87	0.99	0.98	0.86	0.84	0.83	0.82	0.95	0.79
PPV (%)	0.8	1.1	1.4	0.6	0.7	1.2	1.4	1.4	1.5	0.8	1.6
NPV (%)	99.5	99.5	99.4	99.4	99.4	99.5	99.5	99.5	99.5	99.5	99.6
<b>Top 20%</b>											
Sensitivity	25.8	38.5	35.3	29.9	23.2	40.0	42.8	42.8	41.3	23.3	45.3
Specificity	80.0	80.1	80.1	80.1	80.0	80.1	80.1	80.1	80.1	80.0	80.1
LR+	1.29	1.93	1.78	1.50	1.16	2.01	2.15	2.15	2.08	1.16	2.28
LR-	0.93	0.77	0.81	0.88	0.96	0.75	0.71	0.71	0.73	0.96	0.68
PPV (%)	0.7	1.1	1.2	0.8	0.7	1.1	1.2	1.2	1.1	0.7	1.2
NPV (%)	99.5	99.6	99.5	99.5	99.5	99.6	99.6	99.6	99.6	99.5	99.6
<b>Top 80%</b>											
Sensitivity	86.2	95.2	90.7	96.1	71.4	97.0	96.7	97.1	95.6	84.2	97.1
Specificity	20.0	20.1	20.1	20.1	20.0	20.1	20.1	20.1	20.1	20.0	20.1
LR+	1.08	1.19	1.13	1.20	0.89	1.21	1.21	1.21	1.20	1.05	1.22
LR-	0.69	0.24	0.47	0.19	1.43	0.16	0.16	0.15	0.22	0.79	0.14
PPV (%)	0.6	0.7	0.8	0.7	0.5	0.7	0.7	0.7	0.7	0.6	0.7
NPV (%)	99.6	99.9	99.7	99.9	99.2	99.9	99.9	99.9	99.9	99.6	99.9
<b>Top 90%</b>											
Sensitivity	94.3	98.0	96.6	99.1	82.7	98.8	99.0	99.1	97.5	91.4	99.1
Specificity	10.0	10.0	10.0	10.1	10.0	10.0	10.1	10.1	10.0	10.0	10.0
LR+	1.05	1.09	1.07	1.10	0.92	1.10	1.10	1.10	1.08	1.02	1.10
LR-	0.56	0.20	0.33	0.09	1.74	0.12	0.10	0.09	0.25	0.86	0.09
PPV (%)	0.6	0.6	0.7	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6
NPV (%)	99.7	99.9	99.8	99.9	99.0	99.9	99.9	99.9	99.8	99.5	100

LR+ positive likelihood ratio; LR- negative likelihood ratio; PPV positive predictive value; NPV negative predictive value.



**Fig. 1 Model discrimination.** Area under the receiver operating characteristic curve for the risk models in (A) men and (B) women. \*Models originally only developed in men.



**Fig. 2 Model calibration.** Plots of observed and predicted 5-year risk of colorectal cancer for (A) men and (B) women. \*Models originally only developed in men.