## Check for updates

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

J. A. Usher-Smith, A. Harshfield, C. L. Saunders, S. J. Sharp, J. Emery, F. M. Walter, K. Muir and S. J. Griffin British Journal of Cancer (2020) 122:1572–1575; https://doi.org/10.1038/s41416-020-0767-0

**Correction to:** *British Journal of Cancer* (2018) **118**, 750–759; https://doi.org/10.1038/bjc.2017.463, published online 30 January 2018.

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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Colorize         Direct $n = 139,257$ $n = 167/762$ $n = 139,257$ $n = 167/762$ $y$ $13.8$ $20.2$ $y$ $90.0$ $90.1$ $1.38$ $20.2$ $90.1$ $1.38$ $20.2$ $90.1$ $1.38$ $2.03$ $90.1$ $1.38$ $2.03$ $90.1$ $1.38$ $2.03$ $90.1$ $1.38$ $2.03$ $90.1$ $y$ $25.8$ $99.5$ $y$ $20.0$ $90.1$ $1.29$ $1.93$ $0.77$ $0.93$ $0.77$ $99.5$ $y$ $200$ $90.1$ $y$ $200$ $0.77$ $y$ $20.7$ $1.11$ $y$ $2 0.2$ $99.5$ $y$ $0.77$ $0.77$ $y$ $0.77$ $0.77$ $y$ $0.7$ $0.7$ $y$ $0.6$ $0.24$ $0.6$		n=169,722 $n=169,722$ $n=965$ $90.0$ $1.22$ $0.98$ $0.7$ $99.4$ $23.2$ $80.0$ $80.0$	ma (simple) n=150,386 n = 830 22.5 90.1 2.27	$n_{\rm ma}$ (LoX) n=150,386 n=830	<b>усапсег I и</b> n=158,024 n _ 004	<b>rao</b> n=149,693	<b>wei 7-5</b> n=160,256	<i>n</i> =140,917
ERC $n = 761$ $n = 946$ rity 13.8 202 rity 90.0 90.1 1.38 2.03 0.96 0.89 1.1 0.08 1.1 1.29 1.1 1.29 1.93 0.93 0.77 0.93 0.77 1.19 0.77 99.5 99.6 rity 86.2 95.2 rity 20.0 20.1 1.19 0.69 0.24 0.7 0.7 0.7 0.7 0.2 0.7 0.7 0.7 0.2 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	0,00 0,00 0,00 0,00 0,00 0,00 0,00 0,0	n = 965 90.0 90.0 0.98 0.7 99.4 23.2 80.0 1.6	n = 830 22.5 90.1 2.27	n = 830	00			
<ul> <li>ity 13.8</li> <li>ity 90.0</li> <li>0.96</li> <li>0.96</li> <li>0.95</li> <li>0.95</li> <li>0.95</li> <li>0.95</li> <li>99.5</li> <li>99.5</li> <li>1.1</li> <li>0.3</li> <li>0.77</li> <li>0.95</li> <li>99.6</li> <li>1.19</li> <li>0.77</li> <li>0.95</li> <li>99.6</li> <li>1.19</li> <li>0.69</li> <li>0.77</li> <li>0.77</li> <li>1.19</li> <li>0.77</li> <li>0.74</li> </ul>	1.11 9.00 1.11 9.05 9.99 2.92 2.92	12.2 90.0 1.22 0.98 99.4 99.4 23.2 80.0	22.5 90.1 2.27		n = 004	n = 825	n = 898	n = 764
<ul> <li>ity 13.8</li> <li>ity 90.0</li> <li>90.1</li> <li>1.38</li> <li>0.96</li> <li>0.96</li> <li>0.89</li> <li>0.12</li> <li>99.5</li> <li>99.5</li> <li>1.19</li> <li>0.77</li> <li>0.95</li> <li>99.6</li> <li>1.19</li> <li>0.77</li> <li>0.69</li> <li>0.77</li> <li>1.19</li> <li>1.19</li> <li>0.77</li> <li>1.29</li> <li>1.93</li> <li>1.19</li> <li>0.77</li> <li>0.95</li> <li>99.6</li> <li>1.19</li> <li>1.19</li> <li>0.77</li> <li>0.95</li> <li>99.6</li> <li>1.19</li> <li>0.69</li> <li>0.77</li> <li>1.11</li> <li>1.19</li> <li>0.77</li> <li>1.19</li> <li>1.19</li> <li>1.29</li> <li>1.19</li> <li>1.19</li> <li>0.77</li> <li>1.11</li> <li>1.19</li> <li>0.21</li> <li>0.24</li> <li>0.24</li> <li>0.24</li> <li>0.24</li> <li>0.24</li> <li>0.24</li> <li>0.24</li> <li>0.24</li> <li>0.24</li> <li>0.27</li> <li>0.24</li> <li>0.27</li> <li>0.27</li> <li>0.27</li> <li>0.24</li> <li< td=""><td>1.11 90.0 1.1 9.9 9.9 2.9 2.9</td><td>12.2 90.0 0.98 0.7 99.4 23.2 80.0</td><td>22.5 90.1 2.27</td><td></td><td></td><td></td><td></td><td></td></li<></ul>	1.11 90.0 1.1 9.9 9.9 2.9 2.9	12.2 90.0 0.98 0.7 99.4 23.2 80.0	22.5 90.1 2.27					
<ul> <li>ity 90.0</li> <li>90.1</li> <li>1.38</li> <li>0.96</li> <li>0.95</li> <li>0.96</li> <li>0.89</li> <li>0.89</li> <li>0.89</li> <li>1.1</li> <li>99.5</li> <li>99.5</li> <li>99.5</li> <li>1.19</li> <li>0.77</li> <li>0.95</li> <li>99.6</li> <li>1.19</li> <li>1.19</li> <li>0.77</li> <li>0.95</li> <li>1.19</li> <li>1.19</li> <li>0.77</li> <li>0.95</li> <li>1.19</li> <li>1.19</li> <li>1.19</li> <li>0.77</li> <li>0.95</li> <li>1.19</li> <li>1.19</li> <li>0.77</li> <li>0.95</li> <li>1.19</li> <li>1.19</li> <li>0.77</li> <li>0.95</li> <li>1.19</li> <li>1.19</li> <li>0.77</li> <li>1.11</li> <li>1.19</li> <li>0.77</li> <li>0.95</li> <li>0.77</li> <li>1.11</li> <li>1.19</li> <li>0.20</li> <li>0.24</li> <li>0.27</li> <li>0.24</li> <li>0.24</li> <li>0.24</li> <li>0.24</li> <li>0.24</li> <li>0.24</li> <li>0.27</li> <li>0.27</li> <li>0.27</li> <li>0.27</li> <li>0.24</li> <li>0.24</li></ul>	90.0 1 - 1 - 0 9.9.9 8.0.9	90.0 1.22 0.98 0.7 99.4 23.2 80.0	90.1 2.27	24.7	24.9	26.4	14.5	28.7
1.38     2.03       0.96     0.89       0.95     0.89       11     0.8       11     99.5       1129     1.19       1129     1.93       1129     1.93       0.95     99.6       1129     1.19       0.97     1.11       1.29     1.19       1.29     1.19       0.07     1.11       1.20     20.0       1.108     1.19       1.108     1.19       1.108     1.19       0.66     0.24       0.66     0.24       0.66     0.24	1.11 0.0 99.4 80.1	1.22 0.98 99.4 23.2 80.0	2.27	90.1	90.1	90.1	0.06	90.1
0.96 0.89 1.1 0.8 1.1 1.2 0.8 1.1 1.2 0.95 0.955 9955 1.2 0.0 380.1 1.9 0.7 1.1 1.9 1.2 0.0 1.9 1.1 1.0 1.0 0.7 1.1 1.0 1.0 0.7 1.1 1.0 0.6 0.0 20.1 1.1 0.0 0.6 0.0 20.1 1.1 0.0 0.6 0.0 20.1 1.1 0.0 0.6 0.0 20.1 0.0 0.6 0.0 0.0 0.6 0.0 0.0 0.7 0.0 0.6 0.0 0.0 0.6 0.0 0.0 0.6 0.0	0.99 0.6 29.9 80.1	0.98 0.7 99.4 23.2 80.0	200	2.49	2.51	2.67	1.45	2.90
0         0.8         1.1           0         99.5         99.5           ity         25.8         38.5           ity         25.8         38.5           1.29         1.29         1.93           0.93         0.77         1.1           0.9         99.5         99.6           1.29         1.193         1.19           0.9         9.5         99.6           1.10         0.77         1.11           1.08         1.19         1.19           1.108         1.11         20.0           1.108         1.11         20.0           1.108         1.11         20.0           1.108         1.11         20.0           1.108         1.19         20.1	0.6 99.4 80.1	0.7 99.4 23.2 80.0 1 16	0.00	0.84	0.83	0.82	0.95	0.79
ity     25.8     99.5     99.5       ity     25.8     38.5     91.0       ity     80.0     80.1     1.93       1.29     1.29     1.93     0.77       0.95     99.6     99.6     9       ity     86.2     95.2     95.2       1.08     1.19     1.19       1.08     1.19     9       1.08     0.69     0.24       0.66     0.24     0.24	99.4 29.9 80.1	99.4 23.2 80.0	1.2	1.4	1.4	1.5	0.8	1.6
<ul> <li>ity 25.8</li> <li>ity 80.0</li> <li>80.1</li> <li>1.29</li> <li>1.29</li> <li>0.93</li> <li>0.77</li> <li>0.7</li> <li>1.1</li> <li>99.5</li> <li>99.6</li> <li>1.19</li> <li>1.19</li> <li>1.19</li> <li>0.69</li> <li>0.69</li> <li>0.24</li> <li>0.6</li> <li>0.69</li> <li>0.74</li> </ul>	29.9 80.1	23.2 80.0 116	99.5	99.5	99.5	99.5	99.5	9.66
ity 25.8 38.5 ity 80.0 80.1 1.29 1.93 0.77 0.93 0.77 1.1 99.5 99.6 99.6 ity 86.2 95.2 99.6 1.08 1.19 1.19 0.69 0.24 95.2 9	29.9 80.1	23.2 80.0 1 16						
ity 800 80.1 1.29 1.93 0.93 0.77 1.93 1.95.5 99.6 1.08 1.19 1.08 1.19 0.69 0.24 0.69 0.24	80.1	80.0 1 16	40.0	42.8	42.8	41.3	23.3	45.3
1.29     1.93       0.93     0.7       0.93     0.7       0.9     0.7       1.1       99.6       ity       86.2       99.6       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.1       1.10       1.08       1.08       0.69       0.69       0.69       0.74		116	80.1	80.1	80.1	80.1	80.0	80.1
0.93 0.77 0.7 1.1 0.7 1.1 0.9.5 99.6 1.08 1.19 1.08 1.19 0.69 0.24 0.24	1.50		2.01	2.15	2.15	2.08	1.16	2.28
) 0.7 1.1 ) 99.5 99.6 rty 86.2 95.2 95.2 rty 20.0 20.1 0.69 0.24 0.69 0.24	0.88	0.96	0.75	0.71	0.71	0.73	0.96	0.68
) 99.5 99.6 9 ity 86.2 95.2 9 ity 20.0 20.1 1.08 1.19 0.24 0.24 0.24 0.7	0.8	0.7	1.1	1.2	1.2	1.1	0.7	1.2
rity 86.2 95.2 city 20.0 20.1 1.08 1.19 0.69 0.24	99.5	99.5	9.66	9.66	9.66	9.66	99.5	9.66
y 86.2 95.2 95.2 9 y 20.0 20.1 1.19 1.19 0.69 0.24 0.7								
y 20.0 20.1 1.08 1.19 0.69 0.24 0.6 0.7	96.1	71.4	97.0	96.7	97.1	95.6	84.2	97.1
1.08 1.19 0.69 0.24 0.6 0.7	20.1	20.0	20.1	20.1	20.1	20.1	20.0	20.1
0.69 0.24 0.6 0.7	1.20	0.89	1.21	1.21	1.21	1.20	1.05	1.22
0.6 0.7	0.19	1.43	0.16	0.16	0.15	0.22	0.79	0.14
	0.7	0.5	0.7	0.7	0.7	0.7	0.6	0.7
NPV (%) 99.6 99.7	6.00	99.2	6.66	9.99	6.66	6.66	9.66	99.9
Top 90%								
Sensitivity 94.3 98.0 96.6	99.1	82.7	98.8	0.66	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 0.7	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6
NPV (%) 99.7 99.9	6.99	0.66	99.9	6.66	6.66	8.66	99.5	100

Correction: External validation of risk prediction models for incident... JA Usher-Smith et al.

1573

Correction: External validation of risk prediction models for incident... JA Usher-Smith et al.

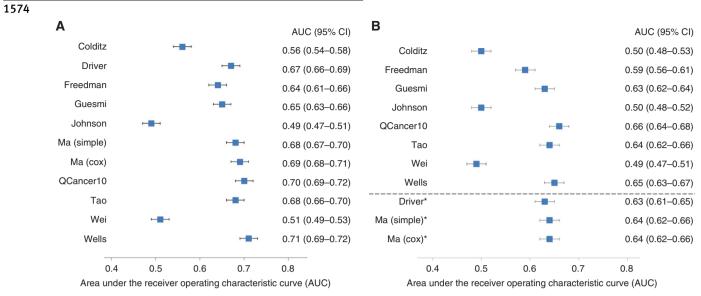


Fig. 1 Model discrimination. Area under the receiver operating characteristic curve for the risk models in (A) men and (B) women. \*Models originally only developed in men.

Correction: External validation of risk prediction models for incident... JA Usher-Smith et al.

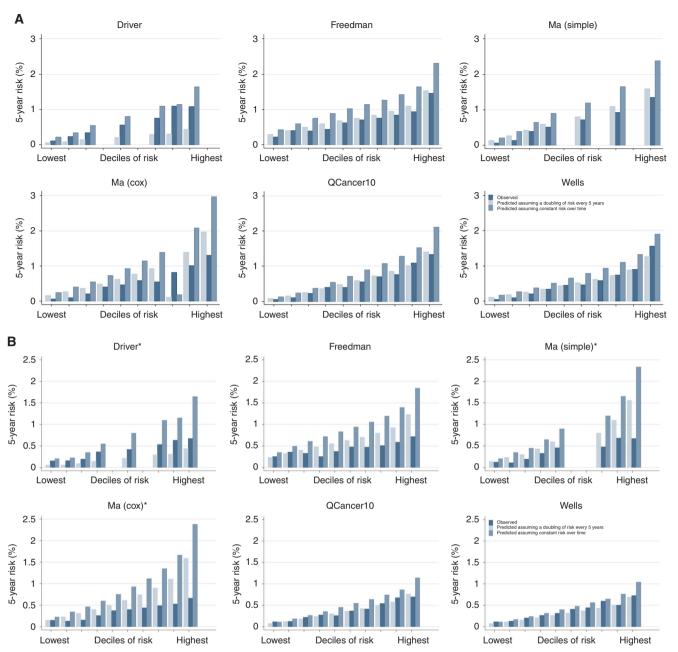


Fig. 2 Model calibration. Plots of observed and predicted 5-year risk of colorectal cancer for (A) men and (B) women. \*Models originally only developed in men.

1575