

**Supplementary Table 4. Performance of DNN model compared with FIT at points of low sensitivity of detecting advanced neoplasia**

Screening strategy	Sensitivity, %	Specificity, %	No. of colonoscopy	ACRNs detected, n	NNScope, n	p value
Target sensitivity	27.3					
DNN	27.3	90.5	266	9	29.6	Reference
FIT	27.3	97.4	79	9	8.8	< 0.001
Target sensitivity	42.4					
DNN	39.4	81.0	529	13	40.7	Reference
Combined FIT and clinical score	42.4	90.7	267	14	19.1	< 0.001

DNN, deep neural network; FIT, fecal immunochemical test; ACRN, advanced colorectal neoplasia; NNScope, number needed to colonoscopy to detect one advanced colorectal neoplasia.