SUPPLEMENTARY MATERIALS

Fig. 1s Intersection over union (IOU).

Source: Keita Otani

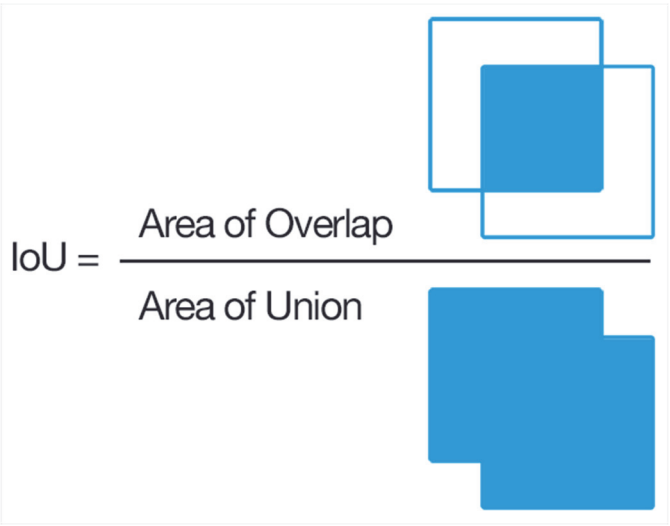

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Table 1s. STROBE STATEMENT checklist of items that should be included in reports of Observational Studies

SECTION/TOPIC	Item No.	Checklist Item	Reported on page No. (of the accepted manuscript)
TITLE AND ABSTRACT	1	(a) Identification as a randomised trial in the title	**1**
		(b) Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)	**2**
INTRODUCTION			
Background/rationale	2	(a) Scientific background and explanation of rationale	**3**
Objectives		(b) Specific objectives or hypotheses	**3**
METHODS			
Trial design	3	(a) Description of trial design (such as parallel, factorial) including allocation ratio	**3**
Setting		(b) Important changes to methods after trial commencement (such as eligibility criteria), with reasons	**4**
Participants	4	(a) Eligibility criteria for participants	**3**
		(b) Settings and locations where the data were collected	
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	**4**
Outcomes	6	(a) Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	**4**
		(b) Any changes to trial outcomes after the trial commenced, with reasons	**4**
Sample size	7	(a) How sample size was determined	

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		(b) When applicable, explanation of any interim analyses and stopping guidelines	**4**
Randomization: sequence generation	8	(a) Method used to generate the random allocation sequence	**4**
		(b) Type of randomisation; details of any restriction (such as blocking and block size)	
Allocation: concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	**4**
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	**4**
Blinding	11	(a) If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	**4**
		(b) If relevant, description of the similarity of interventions	
Statistical methods	12	(a) Statistical methods used to compare groups for primary and secondary outcomes	**4**
		(b) Methods for additional analyses, such as subgroup analyses and adjusted analyses	
RESULTS			
Participants	13*	(a) Report numbers of individuals at each stage of study—e.g., numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analyzed	**5**
		(b) Give reasons for non-participation at each stage	**Figure 1**
		(c) Consider use of a flow diagram	**Figure 1**
Descriptive data	14*	(a) Give characteristics of study participants (e.g., demographic, clinical, social) and information on exposures and potential confounders	**5**

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		(b) Indicate number of participants with missing data for each variable of interest	**5**
		(c) *Cohort study*—Summarize follow-up time (e.g., average and total amount)	**Not applicable**
Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time *Case-control study*—Report numbers in each exposure category, or summary measures of exposure *Cross-sectional study*—Report numbers of outcome events or summary measures	**5**
Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (e.g., 95% confidence interval). Make clear which confounders were adjusted for and why they were included	**5, Table2**
		(b) Report category boundaries when continuous variables were categorized	**5**
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	**Not applicable**
Other analyses	17	(d) Report other analyses done—e.g., analyses of subgroups and interactions, and sensitivity analyses	**5, Table2**
DISCUSSION			
Key results	18	Summarize key results with reference to study objectives	**5, 6**
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	**6**

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Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	**6**
Generalizability	21	Discuss the generalizability (external validity) of the study results	**6**
OTHER INFORMATION			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	**7**

*****Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.

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Table 2s. Ability of AI and endoscopists to detect gastric cancer as a crossover method among a further 250 patients

Outcome	AI diagnosis, 51 patients with gastric cancer with 786 images	Expert endoscopist diagnosis, 49 patients with gastric cancer with 748 images	Risk Difference (95% confidence interval)	
Main outcome				
Per-patient rate of gastric cancer diagnosis	51/51 (100)	47/49 (95.92)	4.08 (-1.46 to 9.62)	
Other outcomes				**P-value**
Per-patient rate of invasive gastric cancer diagnosis	25/25 (100)	22/22 (100)	Not applicable	Not applicable
Per-patient rate of early gastric cancer diagnosis	26/26 (100)	25/27 (92.59)	7.41 (-2.47 to 17.29)	0.491
Per-image rate of gastric cancer diagnosis	786/786 (100)	618/748 (82.62)	17.38(14.66 to 20.10)	<0.001
IOU of gastric cancer§, mean ± SD	0.845 ± 0.256	0.948 ± 0.133	-0.10 (-0.12 to -0.08)	<0.001