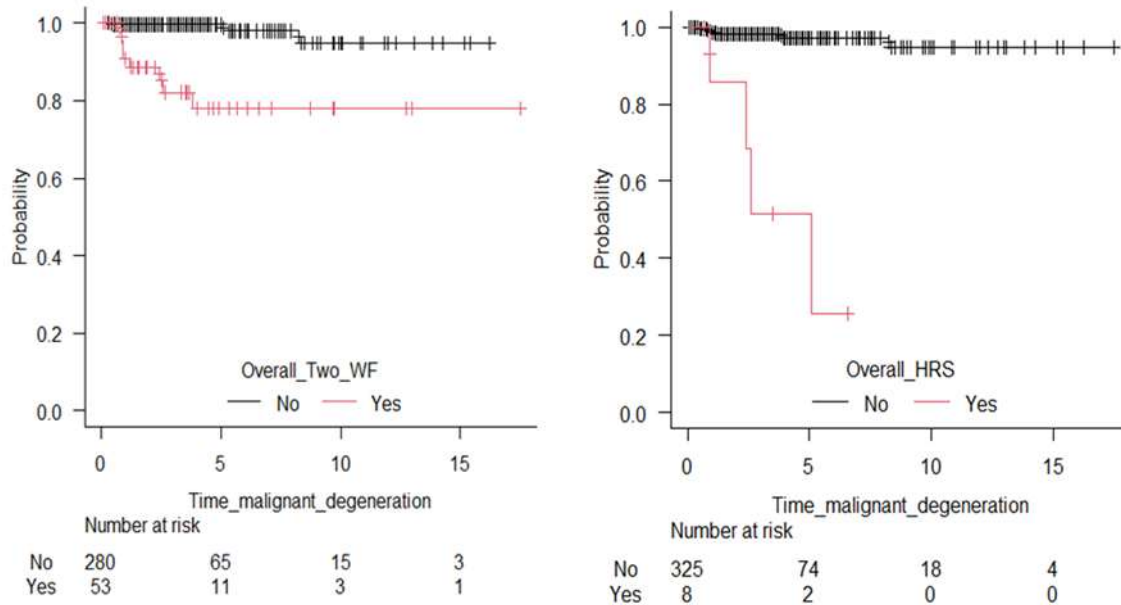
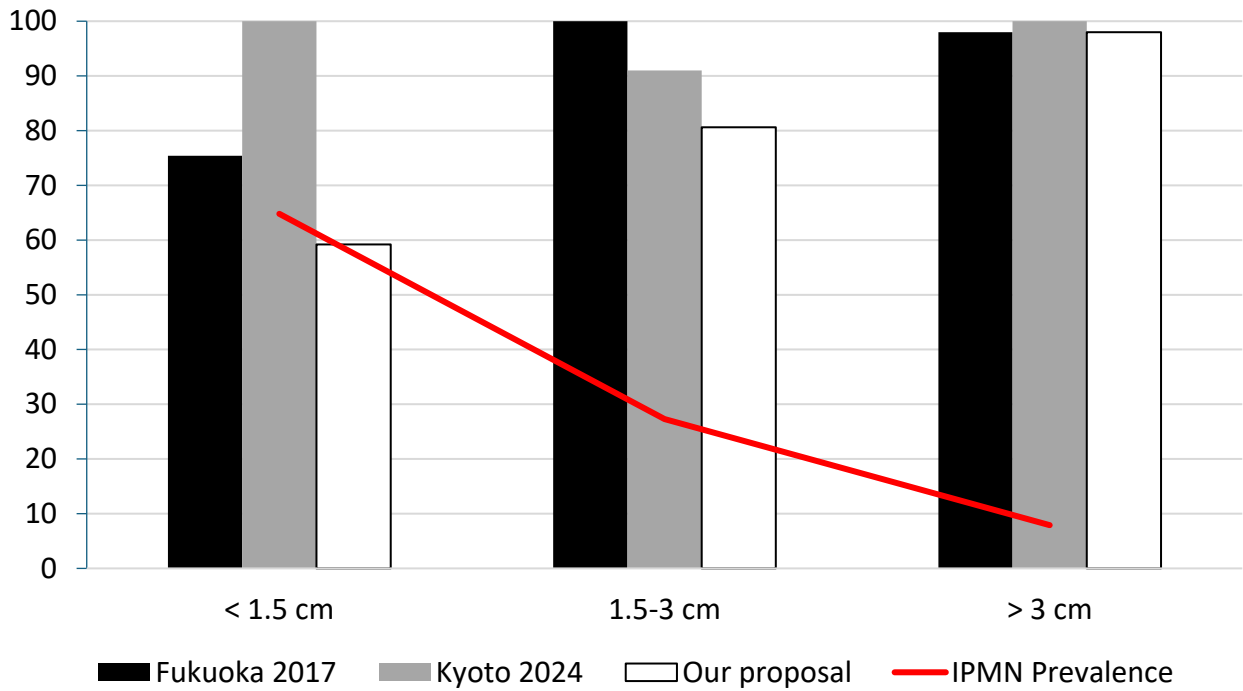


Supplementary Figure 1 Flow diagram detailing patients' enrollment.



Supplementary Figure 2 Disease-free Kaplan Meier survival curves.

Costs by Surveillance Strategies (%)



Size	Prevalence	Fukuoka 2017	Kyoto 2024	Our proposal	Overall p
< 1.5 cm	64,8%	540.7	687.1	407.3	< 0.001
1.5-3 cm	27,3%	1001.4	887.1	807.4	0.16
> 3 cm	7,8%	1530.4	1562.8	1530.4	0.9

Supplementary Figure 3 Costs per-patient per-3 years of FU by Surveillance Strategies.

Supplementary Table 1 HRS, WFs and prediction of BD-IPMN Degeneration

Clinical value	Sensitivity	Specificity	+ LR	- LR	PPV	NPV
High Risk Stigmata	36 %	98 %	18	0.6	50 %	97 %
At least one WF during FU	100 %	60 %	2.5	0	7 %	100 %
At least two WFs during FU	72 %	86 %	5.1	0.3	15 %	98 %

LR, Likelihood Ratio; PPV, Positive Predictive Value; NPV, Negative Predictive Value; WF, Worrisome Feature; FU, Follow Up.

Supplementary Table 2 Predictors of Malignant degeneration, Univariate and Multivariate Cox regression analysis results

Variable	Univariate analysis Hazard Ratio	95%CI	p value	Multivariate analysis Hazard Ratio	95%CI	p value
HRS						
Yes	26.8	7.5-95	<	4.4	1.1-	0.04
No	1	-	0.001	1	17.8	-
			-		-	
IPMN Size	2.4	1.8-3.4	<	2.0	1.3-3.0	<
			0.001			0.001
At least two WFs						
Yes	14.3	3.8-	<	5.8	1.5-	0.01
No	1	54.1	0.001	1	22.4	-
		-	-		-	
One WF						
Yes	64.2	0.4-115	0.60			
No	1	-	-			
ACCI						
Medium-	25.4	0.7-97	0.17			
High	1	-	-			
Low						
Age	0.9	0.9-1.1	0.51			
ASA score						

≥ 3	1.4	0.3-	0.94
≤ 2	1	21.5	-
		-	
Sex			
Male	23.9	0.7-	0.17
Female	1	83.4	-
		-	
IPMN			
location	20.6	0.2-74	0.55
Head	1.3	0.1-95	0.77
Tail	1	-	-
Body			

IPMN, Intra Ductal Papillary Mucinous Neoplasm; ACCI, Age-adjusted Charlson Comorbidity Index; WF, Worrisome Feature; HRS, High Risk Stigmata; ASA, American Society of Anesthesiologists.

Supplementary Table 3 Size thresholds performance and validation

Threshold (cm)	Sensitivity	Specificity	Bootstrap		Value
			95% CI (Sensitivity)	95% CI (Specificity)	
1.5	1.00	0.53	1.00-1.00	0.47-0.58	
3.0	0.73	0.88	0.41-1.00	0.84-0.91	
AUC (overall)					0.91
/					/
AUC (70/30)					0.89
validation					

Supplementary Table 4 Economic outcomes and break-even thresholds for the Proposed strategy compared with Fukuoka 2017 and Kyoto 2024 guidelines

Surveillance Strategy	Median 3-year cost per patient (€)	IQR (€)	Break-even thresholds for missed detections
Proposed	587.0	347.1-930.3	Reference
Fukuoka 2017	670.0	407.3-1130.3	< 0.415 %
Kyoto 2024	747.3	547.2-1026.9	< 0.802 %