

## Contamination in All Endoscope Types

Analysis of the samples revealed contamination in all endoscope types from all manufacturers. According to the AM20 definition, 21 (13%) of duodenoscopes and 8 (13%) of ultrasound endoscopes were contaminated. Microorganisms of gastrointestinal or oral origin were detected in 24 (15%) of duodenoscopes and 9 (14%) of ultrasound endoscopes.

The summarized data from studies 1 and 2 show that a total of 373 duodenoscopes and ultrasound endoscopes were sampled. 62 (17%) of the endoscopes examined were contaminated according to the AM20 definition. MGOs could be detected in 56 (15%) of the endoscopes.

Study 2				Study 1			Summary of Data from Studies 1 and 2		
	N	AM20*, n (%)	MGO**, n (%)	N	AM20*, n (%)	MGO**, n (%)	N	AM20*, n (%)	MGO**, n (%)
All duodenoscopes and linear ultrasound endoscopes							373	62 (17)	56 (15)
Duodenoscopes	159	21 (13)	24 (15)	150	33 (22)	23 (15)	309	54 (17)	47 (15)
Olympus									
TJF-Q180V	68	9 (13)	8 (12)	69	15 (22)	15 (22)	137	24 (18)	23 (17)
TJF-160VR	45	6 (13)	6 (13)	43	13 (30)	6 (14)	88	19 (22)	12 (14)
TJF-160R	6	1 (17)	1 (17)	8	1 (13)	0	14	2 (14)	1 (7)
TJF-140R	1	0	1	2	0	0	3	0	1 (33)
TJF-145	–	–	–	2	0	0	0	0	0
Pentax									
ED34-i10T	14	0	2 (14)	11	3 (27)	0	25	3 (12)	2 (8)
ED-3490TK	11	3 (27)	3 (27)	8	0	0	19	3 (16)	3 (16)
ED-3680TK	–	–	–	1	0	1	1	0	1
Fujifilm									
ED-530XT8	7	1 (14)	2 (29)	5	0	0	12	1 (8)	2 (17)
ED-530XT	7	1 (14)	1 (14)	1	1	1	8	2 (25)	2 (25)
Linear Ultrasound Endoscopes	64	8 (13)	9 (14)						
Olympus									
GF-UCT180	28	4 (14)	5 (18)						
GF-UCT140-AL5	3	0	0						
GF-UCT140P-AL5	1	0	0						
Pentax									
EG-3870UTK	17	3 (18)	3 (18)						
EG-3270UK	10	1 (10)	1 (10)						
FG-36UX	1	0	0						
Fujifilm									
EG-580UT	4	0	0						

Chart edited by OLYMPUS based on data of Rauwers AW et al. Nationwide risk analysis of duodenoscope and linear echoendoscope contamination, Gastrointestinal Endoscopy Volume 92, Issue 3, September 2020, Pages 681-69. [2]

\*AM20: Microbial growth of  $\geq 20$  CFU/20 mL with any species of microorganism

\*\*MGO: Presence of any microbial growth from microorganisms of gastrointestinal or oral origin