

Table 8 Recurrence outcomes according to margin distance
Ordered by outcome, proportion of low-risk tumors, stage

1 st author, year (reference)	Years	n	Stage	Mean size	Comments	Mean f/u mo	Proportion of low risk T ^a	% VATS	% Segment	% Wedge	% Nx	Outcome	Time period	Margin (mm)					Sig by MVA	# of Factors	Confidence in results	
														≥20	16–20	11–15	6–10	≤5				
Recurrence															% Recurrence							
Mohiuddin 2014 (149)	01-11	367	clA1,2	-	Excl BAC	36	+	58	-	100	68	LR	2 yr	9	13	24	29	<.05	9	M		
Maurizi 2015 (150)	03-13	138	pIA1,2	-	All hi risk pts	31	+	0	-	100	0	LR	- ^b	[24] ^b	[25] ^b	[25] ^b		-	-			
Sienel 2007 (151)	87-02	49	clA	19		54	+	0	100	-	0	LR	- ^b	[0] ^b	[23] ^b			-	-			
Maurizi 2015 (150)	03-13	182	pl	-	All hi risk pts	31	+	0	-	100	0	LR	- ^b	[25] ^b	[28] ^b	[27] ^b		-	-			
Moon 2017 (152)	04-13	39	clA	17	CTR ≥.5	32	++	72	26	74	59	LR	- ^b	[18] ^b	[73] ^b			-	-			
RFS															% 5-year RFS							
Mohiuddin 2014 (149)	01-11	367	clA1,2	-	Excl BAC	36	+	58	-	100	68	LR-RFS	2 yr	92	88	80	77	<.05	9	M		
Dolan 2021 (153)	10-16	695	cl	15		51	++	96	0	100	30	LR-RFS	5 yr		86		82		-	-	-	
Maurizi 2015 (150)	03-13	138	pIA1,2	-	All hi risk pts	31	+	0	-	100	0	RFS	5 yr	54	38		53	NS	8	M		
Maurizi 2015 (150)	03-13	182	pl	-	All hi risk pts	31	+	0	-	100	0	RFS	5 yr	54	48		59	NS	8	M		
El-Sherif 2007 (154)	97-04	81	I-IIA	21	All hi risk pts	20	+	Some	32	68	-	RFS	5 yr		70		63		-	-		
Dolan 2021 (153)	10-16	695	cl	15		51	++	96	0	100	30	RFS	5 yr		69		65		-	-	-	
Wolff ^c 2017 (155)	00-05	138	IA1,2	13	Excl BAC AIS	50	++	47	-	100	77	RFS	5 yr	-	87		66	<.05	4	VL		
Moon 2017 (152)	04-13	39	clA	17	CTR ≥.5	32	++	72	26	74	59	RFS	5 yr		80		24	<.03	13	L		
Moon 2017 (152)	04-13	52	clA1,2 ^d	12	CTR <.5	32	++++	85	35	65	58	RFS	5 yr		100		100		-	-		
Masai 2017 (156)	04-13	508	pl-IIA	14	49% AIS MIA	51	++++	0	46	54	-	RFS	5 yr	100		96	74		-	-		

Inclusion criteria: studies published 2000–21 reporting outcomes according to margin distance in sublobar resection and ≥50 patients in study. Bold highlights better outcome (>2-point difference); Red font highlights potential study weakness; Light green shading highlights statistically significant difference (lighter shade = univariable; darker = multivariable).

^a, qualitative estimate from reported proportions of AIS/MIA, low CTR tumors, elective limited resection, institutional policy and patient population; ^b, raw incidence of events during the study period (in brackets because not an actuarial rate); ^c, 18% of patients from a screening study (I-ELCAP); ^d, 8% clA3; ^e, staples included in margin measurement; ^f, invasive tumor size, also used for M/T calculation; ^g, for entire study (may not be accurate for the subset).

AIS, adenocarcinoma in situ; Any R, any recurrence; CTR, consolidation/total tumor ratio of size on CT (lung windows); D Recur, distant recurrence; Excl BAC, excluded bronchoalveolar carcinoma; f/u, median follow-up (months); hi risk pts, high risk patients (comorbidities precluding lobectomy); L, local recurrence (in same lobe or lobar nodes); LR, locoregional recurrence (in same or adjacent lobe or in intrathoracic nodes); M/T, margin to tumor ratio; MVA, multivariable analysis; Nx, no nodes assessed; RFS, recurrence-free survival; Sig by MVA, statistically significant by multivariable analysis; STAS +/−, spread through air spaces present/absent.