

Appendix (as supplied by the authors): LACE+ point system derived from original cohort containing all discharges versus one discharge per patient, and parameter estimates from logistic regression model with LACE+ score as independent predictor of 30-day death or urgent readmission

Table 1. LACE+ point system derived on original cohort containing all discharges versus one discharge per patient

LACE+ a validated model, derived and validated in the same setting as our study, that predicted the risk of 30-day death or urgent readmission using a single score that considers the following covariates: length of stay; acuity of admission; comorbidity, measured using the Charlson index; emergency department use in the six months prior to admission; patient age and sex; acute diagnoses and procedures performed during the index admission; number of days on alternative level of care during the index admission; the number of elective and urgent hospitalizations in the year prior to the index admission; and hospital type (teaching vs. large community vs. small community). The LACE+ index was highly discriminative with a C-statistic of 0.771 and was well calibrated for all but 1.5% of validation patients. LACE+ can be calculated using the following point system:

PREDICTOR	POINTS	
	All discharges	1 discharge per patient
Male	2	3
Urgent admission	13	15
Discharge institution		
Teaching hospital or small non-teaching hospital*	0	0
Large non-teaching hospital**	-1	-1
Length of stay (days)		
<1	0	0
1	2	2
2	2	3
3	3	4
4	4	5
5-6	4	6
7-10	5	7
>10	7	9
CMG score		
<-2	-10	-13
-2 -- -1	-5	-6
0	0	0
1-2	6	8
>2	19	24
Number of days on ALC status		
0	0	0
>0	-1	-1

Number of ED visits in previous 6 months				
0			0	0
1			2	3
>1			6	6
Number of elective admissions in previous year				
0			0	0
>0			3	6
Previous urgent admissions	Charlson score	Age (years)		
0	0	<32	0	0
		32-40	1	2
		41-46	3	5
		47-52	4	7
		53-58	6	9
		59-64	7	12
		65-69	9	15
		70-75	11	18
		76-80	13	20
		>80	17	27
	1	<32	8	10
		32-40	9	12
		41-46	10	15
		47-52	11	16
		53-58	13	17
		59-64	14	20
		65-69	16	23
		70-75	17	26
		76-80	19	27
		>80	22	33
	>1	<32	22	30
		32-40	23	31
		41-46	24	34
		47-52	24	34
		53-58	25	35
		59-64	26	38
		65-69	27	40
70-75		28	42	
76-80		29	42	
>80		31	47	
>0	0	<32	19	25
		32-40	19	26
		41-46	21	27
		47-52	21	28
		53-58	22	29
		59-64	22	30
		65-69	23	32
		70-75	25	33
		76-80	26	35

	1	>80	28	38
		<32	25	33
		32-40	25	34
		41-46	26	35
		47-52	26	35
		53-58	27	35
		59-64	27	36
		65-69	28	38
		70-75	29	39
		76-80	30	40
	>80	31	42	
	>1	<32	36	48
		32-40	36	48
		41-46	37	49
		47-52	36	48
		53-58	36	48
		59-64	36	49
		65-69	36	50
		70-75	37	50
		76-80	37	50
>80		37	51	

*non-teaching hospital with < 100 beds

**non-teaching hospital with ≥ 100 beds

Table 2. Parameter estimates from logistic regression model with LACE+ score as independent predictor of 30-day death or urgent readmission

	LACE+ score using point system derived on all discharges	LACE+ score using point system derived on 1 discharge per patient
Intercept	-3.7572	-4.6091
1-unit increase in LACE+ score (β)	0.0463	0.0437

We calculated patients' risk of 30-day death or urgent readmission as the inverse of $1 + e^{-(\text{intercept} + \beta * \text{LACE+score})}$ using the parameter estimates from the original study shown in Table 2 above.