Supplemental Information

Attending Hospitalist Survey Questions

How many years have you been practicing as a hospitalist attending?

On average, how many weeks of inpatient service do you work each year?

In general, how confident are you in your ability to accurately assess a patient's risk for readmission within 7 days?

1: Not confident at all
2: Slightly confident
3: Somewhat confident
4: Fairly confident
5: Completely confident

Assume each patient on your service was assigned a risk score for readmission to the hospital within 7 days on the basis of demographic, socioeconomic, and medical history factors. How likely is it that this relative readmission risk score would influence your clinical decision-making at the point of care?

1: Not at all likely
2: Not really likely
3: Neutral
4: Somewhat likely
5: Very likely

On a scale of 1 to 5, with 1 indicating "Not at all important" and 5 indicating "Very important," how important are each of the following factors in determining a patient's risk for readmission to the hospital within 7 days?

Total hospital length of stay (1–5)
Month of admission (1–5)
Primary health care provider (1–5)
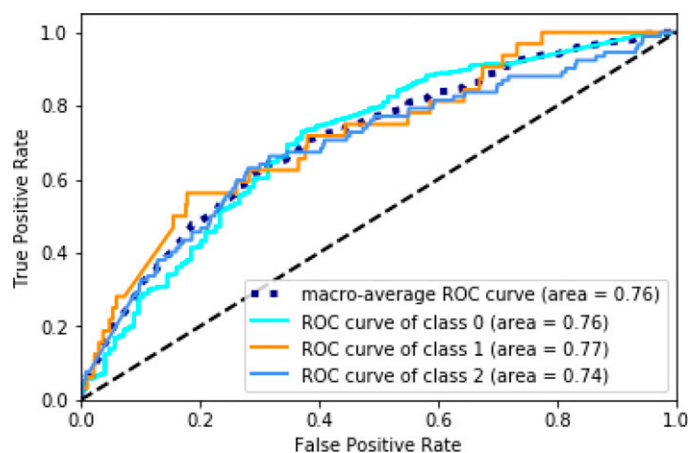County of residence (1–5)
History of a previous readmission (1–5)
Unit of admission (eg, PICU, floor, etc) (1–5)
Race (1–5)
Insurance class (eg, private, public, self-pay) (1–5)
Attending physician at time of discharge (1–5)
Department of primary provider team (eg, hospital medicine, pulmonology, surgery, etc) (1–5)

SUPPLEMENTAL FIGURE 4 Receiver operating characteristic curves for prediction of risk of readmission among those with no readmission (Class 0), 7-day readmission (Class 1), and 30-day admission (Class 2). Each patient probability was scored on the basis of their appropriate model (observation or inpatient), and performance measures are reported as aggregates on the basis of comparing predicted outcomes with actual outcomes.

SUPPLEMENTAL FIGURE 5 Sample output of clinical decision support tool for patients admitted to the general pediatric unit ("SubSpec"). Green, yellow, and red circles represent low-, medium-, and high-risk stratifications for readmission, respectively. Clinical provider and patient information were changed and do not reflect actual protected health information.

SUPPLEMENTAL TABLE 3 Confusion Matrix for the Test Data Set

		Actual		
		No Readmission	7-D	30-D
Predicted	No readmission	1140	10	33
	7-d	76	17	8
	30-d	135	4	62