

Seek COVER: Development and validation of a personalized risk calculator for COVID-19 outcomes in an international network

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- INTRO:**
- Patients can be risk stratified based on pre-existing conditions
 - This allows for more effective triage, risk-stratified public health ordinance and reassurance without the need for laboratory testing

METHODS

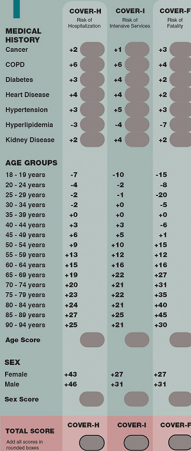
- We used logistic regression to predict adverse outcomes following infections
- Using large historical flu data and validated in covid-19 data, we predicted risk of hospitalization (COVER-H), Intensive services (COVER-I) and death (COVER-F).
- We tested the model in multiple international datasets of covid-19 patients.

The final models use only 9 predictors

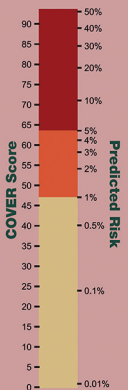
COVER-H COVER-I COVER-F

	COVER-H	COVER-I	COVER-F
OPTUM	0.84	0.84	0.90
HIRA	0.81	0.91	0.90
SIDIAP	0.75	NA	0.90
TRDW	0.73	NA	NA
VA	0.69	0.76	0.72
CUMC	NA	0.73	0.82

1 DETERMINE COVER SCORES



2 LEARN THE RISKS



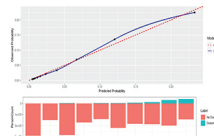
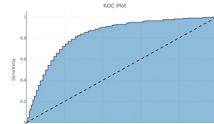
3 COMPARE THE RISK WITH OTHERS



A digital version of this risk calculator is available in: <http://evidence.ohdsi.org/Covid19CoverPrediction/>

Total Patients Hospital Intensive services Fatality

	Total Patients	Hospital	Intensive services	Fatality
OPTUM	2,082,277	105,030	29,905	11,407
CUMC	2,731	N/A	134	335
HIRA	1,985	89	22	43
SIDIAP	37,950	1,223	N/A	406
TRDW	395	21	5	1
VA	1,446	149	38	43



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