

De RISE UP score

een betrouwbaar prognostisch model voor ouderen en patiënten met COVID-19

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Met dank aan: Drs. Paul van Dam, internist acute geneeskunde

Prognose inschatting op SEH

Belangrijke keuzes maken in korte tijd

Prognose speelt essentiële rol!

Arts schat in ongeveer 75% van de gevallen de prognose goed in



1. Christakis et al. *Archives of internal medicine*, 1998 Nov 23;158(21):2389-95.
2. Zelis et. al., *Plos one*, 2019 Jan 2;14(1):e0208741.

RISE UP score & ouderen



- Risk Stratification in the Emergency department in acutely ill older Patients

- Pred

- 6 ite

- Leeftij

- ≥ 2 afwijkende vitale waarden

- 4 bloedwaarden: albumine, ureum, LDH en bilirubine

AUC 0.83 (0.78 - 0.89)



RISE UP score & COVID-19



- COVID-19 patiënten: vaak ouder dan 65 jaar
- Validatie in 2 studies  **zuyderland**  **Maastricht UMC+**
- ± 1000 patiënten, alle leeftijden
- Vergeleken met andere COVID-19 risico-scores



Table 3. Comparison of the AUCs of included prediction models.

Prediction model	30-day mortality (AUC, 95% CI)	Difference with RISE UP (<i>p</i> value) ^a	14-day mortality (AUC, 95% CI)	Difference with RISE UP (<i>p</i> value) ^a	Composite endpoint (mortality and/or MCU/ICU admission) (AUC, 95% CI)	Difference with RISE UP (<i>p</i> value) ^a
RISE UP	0.83 (0.79–0.88)	Reference	0.83 (0.79–0.88)	Reference	0.79 (0.75–0.84)	Reference
4C mortality score	0.84 (0.79–0.88)	.914	0.83 (0.79–0.88)	.926	0.77 (0.72–0.82)	.170
CURB-65	0.75 (0.70–0.80)	<.001	0.75 (0.70–0.81)	.005	0.68 (0.62–0.73)	<.001
MEWS	0.64 (0.58–0.70)	<.001	0.62 (0.56–0.69)	<.001	0.73 (0.68–0.78)	.037
REMS	0.73 (0.68–0.78)	<.001	0.74 (0.69–0.79)	.001	0.72 (0.66–0.77)	<.001
abbMEDS	0.75 (0.70–0.81)	<.001	0.75 (0.69–0.81)	.003	0.71 (0.66–0.76)	<.001
SOFA	0.72 (0.67–0.78)	<.001	0.72 (0.65–0.78)	<.001	0.76 (0.71–0.81)	.200
APACHE II	0.71 (0.65–0.78)	<.001	0.73 (0.67–0.79)	.004	0.69 (0.63–0.74)	<.001
CALL score	0.76 (0.71–0.81)	.002	0.76 (0.70–0.81)	.012	0.70 (0.65–0.75)	<.001
ACP index	0.67 (0.61–0.73)	<.001	0.67 (0.61–0.73)	<.001	0.66 (0.61–0.72)	<.001
Host risk factor score	0.64 (0.57–0.70)	<.001	0.62 (0.56–0.69)	<.001	0.63 (0.57–0.68)	<.001

4C: Coronavirus Clinical Characterisation Consortium; abbMEDS: abbreviated Mortality Emergency Department Sepsis; ACP: age C-reactive protein; APACHE II: Acute Physiology and Chronic Health Evaluation II; AUC: area under the curve; CALL: Comorbidity Age Lymphocyte LDH; CI: confidence interval; CURB-65: Confusion Urea Respiration Blood pressure; ICU: intensive care unit; MCU: medium care unit; MEWS: Modified Early Warning Score; REMS: Rapid Emergency Medicine Score; RISE UP: Risk Stratification in the Emergency Department in Acutely Ill Older Patients; SOFA: Sepsis-related Organ Failure Assessment.

^aComparison of the AUC of the prediction model with the AUC of the RISE UP score.

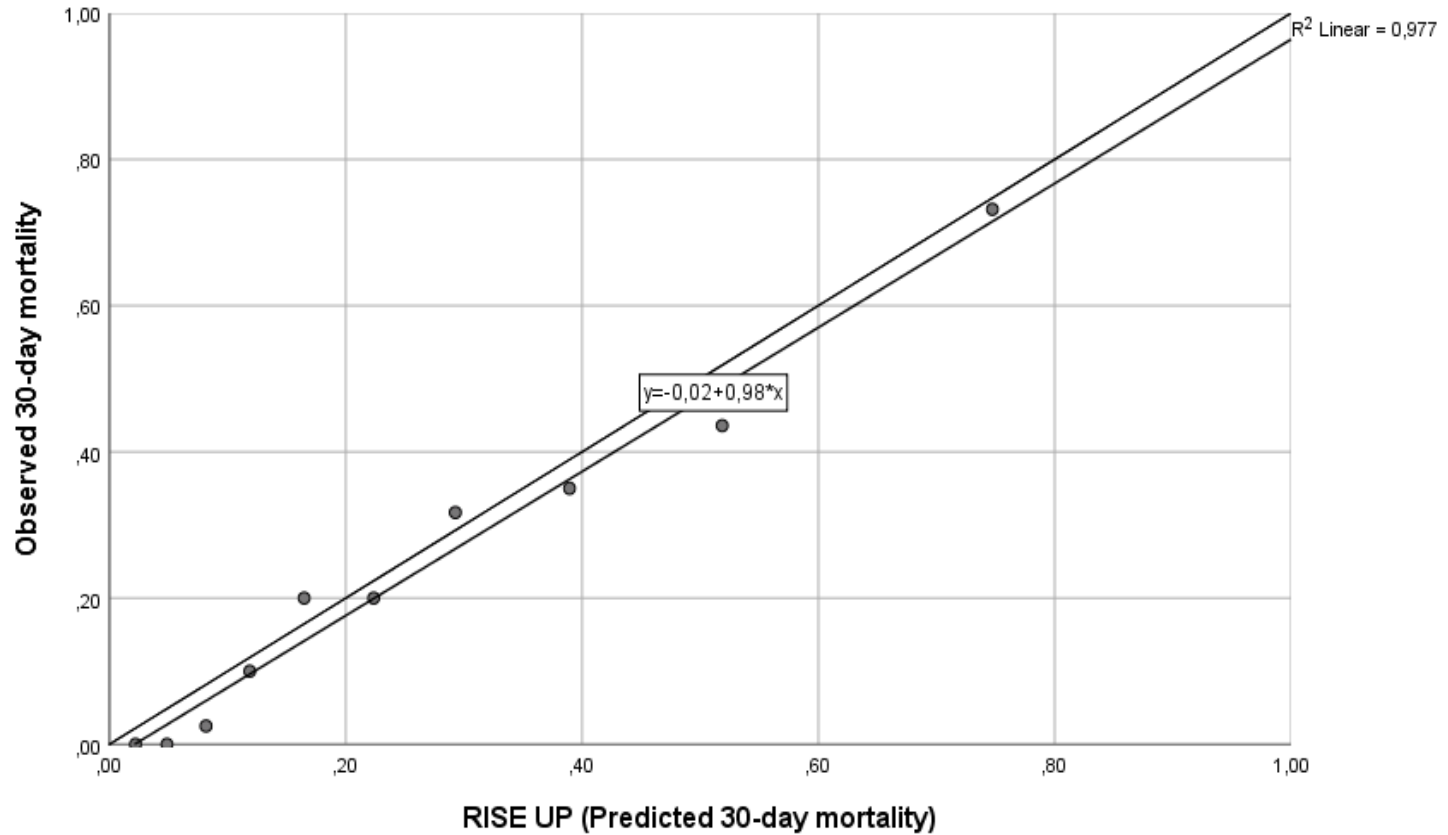
COPE score:

30-day mortality: AUC 0.81 (95% CI: 0.76-0.86)

14-day mortality: AUC 0.79 (95% CI: 0.74-0.84)

Composite endpoint: AUC 0.80 (95% CI: 0.75-0.84)

Calibratie



Makkelijk bruikbaar

	<u>COPE</u>	<u>RISE UP</u>
Weinig labafwijkingen:	5.8%	17.3%
Veel labafwijkingen:	60.5%	79.8%

Maar wat kunnen we er nu mee?

- Patiënten met laag risico:
 - Veilig naar huis of eerder ontslag naar huis



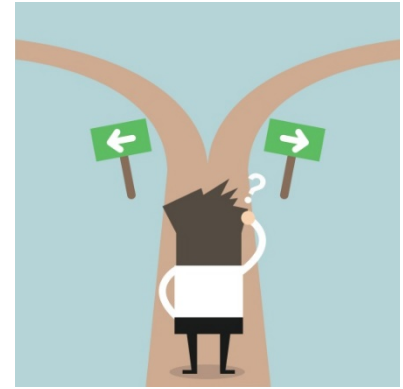
- Patiënten met hoog risico:
 - Eerder naar IC of frequentere controles
 - (Eerder) palliatieve zorg starten



Take home messages



betrouwbare
voorspelling



Besluitvorming
optimaliseren