Prospective Validation of the Universal Vital Assessment (UVA) Score to Predict the In-hospital Mortality of Patients with Acute Illness Admitted to a Government District Hospital in KwaZulu-Natal, South Africa

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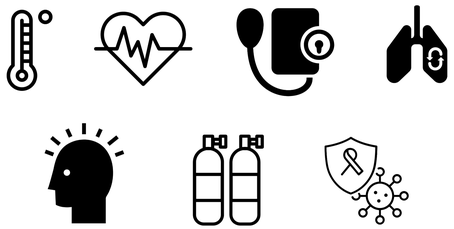
INTRO

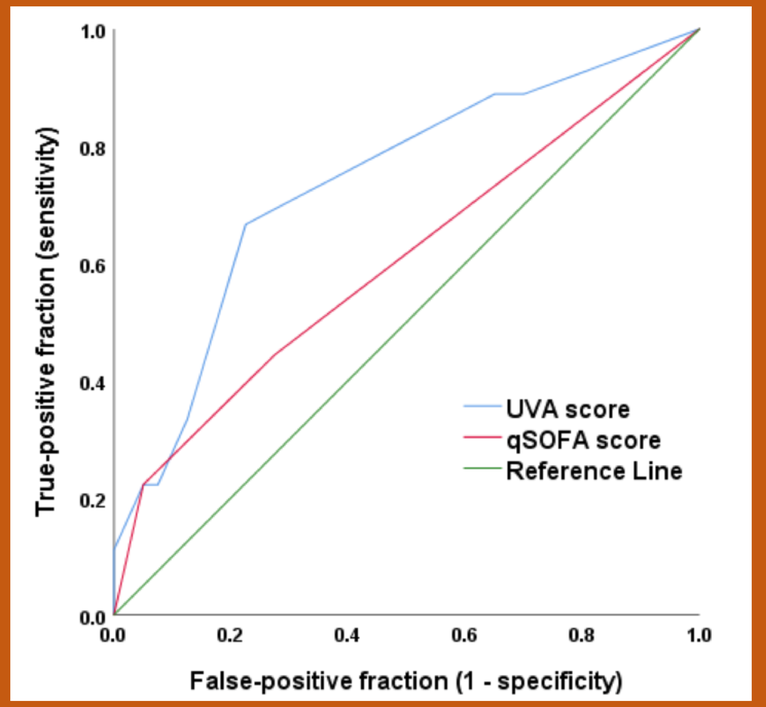
- **Critical illness** is a frequent cause of **mortality** in **resource-limited settings.**
- **Improved triage** on admission could improve mortality.
- The UVA score can **risk-stratify** patients using **easily available clinical data**

METHODS

- **Prospective** study conducted from **February-March 2020**
- 61 adults admitted to **medical wards** were enrolled, prior to interruption by COVID-19
- **30-day mortality** outcome available for 56 patients
- The following **clinical parameters** were collected **within 24h of admission** as part of routine care:



The UVA score predicted mortality better than the qSOFA score in a resource-limited, HIV-prevalent setting.



	aROC	95% CI	P-value
UVA score	0.74	0.55-0.93	0.03*
qSOFA score	0.60	0.38-0.83	0.33

Figure 1. ROC curves for the UVA and qSOFA scoring tools

Table 1. Comparison of qSOFA and UVA components & associated values

	T, °C	HR, bpm	SBP, mmHg	RR, brpm	GCS	O2 sat	HIV status
UVA	**<36:** 2	**≥ 120:** 1	**<90:** 1	**≥ 30:** 1	**< 15:** 4	**<92%:** 2	**Pos:** 2
QSOFA	-	-	**≤ 100:** 1	**≥ 22:** 1	**<15:** 1	-	-

RESULTS

- Mean (±SD) age 52 (±17) years, 51% women, & 46% HIV-infected.
- 30-day mortality was 16.1%.
- Median (±IQR) UVA score was 2 (±3).
- **UVA score ≥3** was significantly associated with 30-day mortality (aOR 6.2; 95% CI 1.2-33.1).

DISCUSSION

- A **moderate-risk UVA score** (≥3) was predictive of **30-day mortality**, though needs to be confirmed in larger studies.