

## Introduction

The qSOFA score was suggested from the Third International Consensus Definitions for Sepsis to be used in the ED as a screening tool to identify patients likely to have sepsis. Data on the diagnostic performance of qSOFA in the ED for the early identification of patients with sepsis are limited.

## Methods

Routine data for all non- trauma patients over 18 years of age who presented in the ED of two large tertiary care hospitals in Berlin center within two weeks (11/11/2016-17/11/2016) were extracted from the hospital information system.

Data were extensively checked for validity and plausibility and vital parameters were manually completed. The qSOFA score was calculated based on available routine information and one point was assigned for either one of the following criteria  $SBP \leq 100$  mmHg, respiratory rate  $\geq 22$  breaths per min, or altered mentation (Glasgow coma scale  $< 15$ ).

Sepsis was defined based on the routine diagnoses and following ICD-10 Codes: A41.X, A40.X, R65.1, A39.2, A39.4, A22.7, A26.7, A42.7, B37.7, A32.7, A20.7.

## Objective

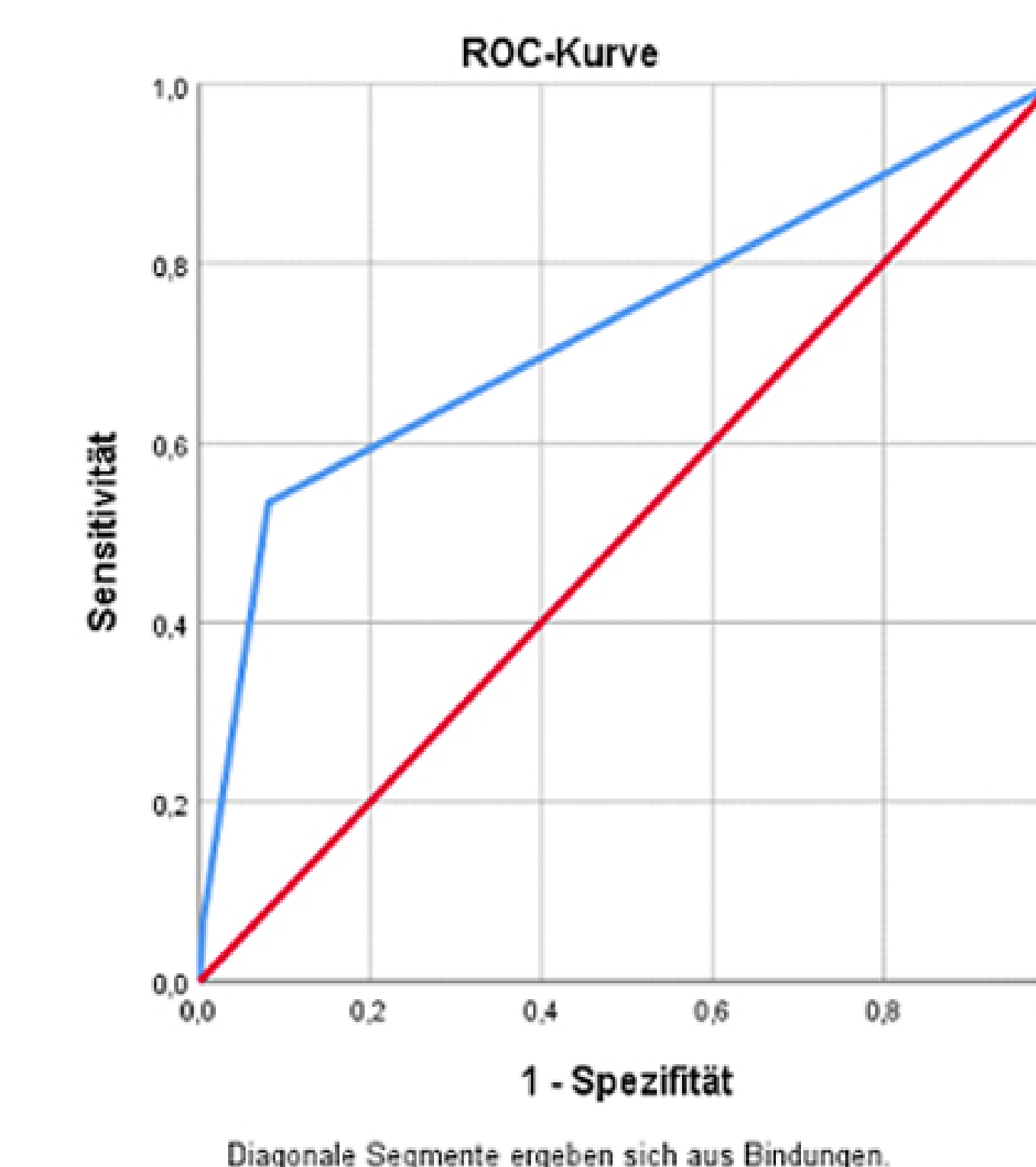
To evaluate the diagnostic performance of qSOFA for the early identification of patients with sepsis in the ED.

## Results

Overall, 1,334 patients were included. The prevalence of sepsis was 1.1% (n=15) and 4 patients developed a septic shock (0.3%). 91.4% had no qSOFA points (n=1,221), 8.1% had 1 qSOFA point and 0.5% had 2 qSOFA points. The prevalence of Sepsis was 0.6% in patients with no qSOFA point (n=7), 6.5% in patients with 1 qSOFA point (n=7) and 14.3% in patients with 2 qSOFA points (n=1). The area under the receiver operating characteristics curve (AUROC) for the detection of sepsis by qSOFA was 0.728 (95%-CI: 0.570-0.885,  $p=0.002$ ; figure 1). Logistic regression analysis revealed an odds ratio of 7.64 (95%-CI: 3.50-16.66;  $p<0.001$ ) for the prediction of sepsis by qSOFA.

## Conclusions

**In our study, we were able to demonstrate a moderate accuracy of the qSOFA score for predicting sepsis in non-selected patients who presented to the ED. Further evaluation could be conducted in order to determine if other parameters increase the accuracy and sensitivity of early sepsis diagnosis in ED patients.**



**Declaration of Interest: Research Scientist in the Department of Emergency and Acute Medicine (CVK, CCM), Charité – Universitätsmedizin Berlin**