Cardiogenic shock (CS) presents with a range of severity. Criteria at time of worsening lactate ≥ 50% if baseline lactate ≥ 2. Preceding cardiac arrest with coma. Revision of SCAI stages with the use of mechanical circulatory support (MCS) (new or > 1 device) initiated >24 h. Site of SCAI stages, updated with the incorporation of vasoactive dosing as assessed by VIS offers improved mortality risk assessment compared with using solely the number of vasoactive agents.

Clinicians were asked to designate SCAI stage at 4h and change in VIS from 4h to 24h were both significantly associated with mortality (p <0.001 for each; Fig 3).

Revision of algorithmic assessment using the 2022 SCAI stages incorporating VIS as a marker of escalation (Table 1), identified a stepwise gradient of mortality risk and more closely aligned with clinician application of the 2019 SCAI stages (Fig 1)

Both clinician and CCTN algorithmic application of the 2019 SCAI stages effectively stratified mortality risk and are complementary. Clinicians better integrate the overall trajectory of illness and identify higher-risk patients for allocation to SCAI stages D & E.

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A similar proportion of patients were supported by ≥ 2 vasoactive agents in clinician and algorithm-assigned 2019 SCAI stage D; however, clinician-identified pts in both stage D and stage E were those with much higher vasoactive medication dosing.

RESULTS

- Of 5,087 consecutive CICU admissions, 619 (12.2%) presented with CS and had staging by all 3 methods. 2. Both clinician and algorithmic application of the 2019 SCAI stages effectively identified a stepwise gradient of mortality risk (Fig 1).
- Clinicians identified higher risk patients for allocation to SCAI stages D and E compared with algorithmic application of 2019 SCAI stages (Fig 1).
- The two 2019 SCAI staging methods were complementary for risk stratification (Fig 2).

CONCLUSIONS

- Both clinician and CCTN algorithmic application of the 2019 SCAI stages effectively stratify mortality risk and are complementary.
- Clinicians better integrate the overall trajectory of illness and identify higher-risk patients for allocation to SCAI stages D & E.
- Incorporation of vasoactive dosing as assessed by VIS offers improved mortality risk assessment compared with using solely the number of vasoactive agents.
- Algorithmic application of the 2022 SCAI stages, updated with the inclusion of VIS to assess escalation/de-escalation: 1) refines risk stratification in CS; 2) more closely aligns with clinician assessment; and 3) may be useful in clinical trials and observational research.

DISCLOSURE OF FACULTY RELATIONSHIPS:
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