Shock index predicts outcome in patients with suspected sepsis or community acquired pneumonia: a systematic review

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Online Data Supplement
### Medline Search Strategy Example

|   |   |
|---|---|
| 1. | exp Emergency Treatment/ |
| 2. | exp Emergency Medical Services/ |
| 3. | exp Emergency Service, Hospital/ |
| 4. | exp Crisis Intervention/ |
| 5. | (crisis intervention or crisis interventions or critical incident or critical incidents).ab,ti. |
| 6. | (emergency medical service or emergency service*).ab,ti. |
| 7. | (emergency service hospital service* or emergency unit or emergency room or emergency department or emergency health care or emergency medical care).ab,ti. |
| 8. | (emergency ward or emergency treatment or emergency therapy).ab,ti. |
| 9. | emergency medicine.ab,ti. |
| 10. | (acute care or acute medical care).ab,ti. |
| 11. | accident service.ab,ti. |
| 12. | (prehospital or pre-hospital or preclinical or pre-clinical adj3 care or support or treat*).ab,ti. |
| 13. | ambulance care.ab,ti. |
| 14. | exp First Aid/ |
| 15. | exp Emergency Medical Technicians/ |
| 16. | paramedic*.ab,ti. |
| 17. | ((emergency or critical or trauma or triage or ambulanc*) adj3 (doctor* or crew* or staff or team*)).ab,ti. |
| 18. | (Trauma Center* or Trauma Unit* or Triage*).ab,ti. |
| 19. | OR/1-18 |
| 20. | exp Sepsis/ |
| 21. | exp Shock, Septic/ |
| 22. | (sepsis or septic shock).ab,ti. |
| 23. | (septic* or septicemia).ab,ti. |
| 24. | sepsis adj5 (urosepsis or severe pneumonia or gram negative or intra-abdominal) |
| 25. | OR/20-24 |
| 26. | exp Mortality/ |
| 27. | (Mortality* or mortality rate* or death or survival).ab,ti. |
| 28. | (decreased function or functional status or functional impairment).ab,ti. |
| 29. | (adverse outcome* or poor outcome* or adverse health outcome*).ab,ti. |
| 30. | (readmission* or rehospitalization* or long term hospitalization or delayed discharge).ab,ti. |
| 31. | admission AND (critical care or critical care or intensive care or high dependency).ab,ti. |
| 32. | OR/26-31 |
| 33. | Prognos*,ab,ti. |
| 34. | Predict*,ab,ti. |
| 35. | Incidence.sh. |
| 36. | Early recognition.ab,ti. |
| 37. | Utility.ab,ti. |
| 38. | Association.ab,ti. |
| 39. | Relationship.ab,ti. |
| 40. | OR/33-39 |
| 41. | AND/19,25,32,40 |
| 42. | (Shock Index).ab,ti. |
| 43. | AND/41,42 |

**Table S1:** Medline search strategy. The search strategy was modified as appropriate for each database.
### Table S2: Downs and Black quality assessment for included studies.

| Study | W1-2012 | W2-2012 | W3-2012 | W4-2012 | W5-2012 | W6-2012 | W7-2012 | W8-2012 | W9-2012 | W10-2012 | W11-2012 | W12-2012 |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1. Hypothesis/aims/objectives clearly stated | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 2. Main outcome measures clearly stated | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 3. Characteristics of patients clearly described | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4. Interventions of interest clearly described | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 5. Distribution of principle confounders clearly described | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 6. Main findings clearly described | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 7. Estimates of random variability in the data provided | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 8. Important adverse events reported | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 9. Characteristics of patients lost to follow up described | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 10. Actual probability values reported | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 11. Participants approached representative of entire population | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 12. Participants recruited representative of the entire population | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 13. Staff, places and facilities treated representative of the majority of population | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 14. Blinding of study subjects | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 15. Blinding of assessors | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 16. Data based on dredging clearly stated | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 17. Time period between the intervention and outcome the same for cases and controls | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 18. Appropriate statistical tests used | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 19. Compliance to intervention reliable | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 20. Main outcome measure reliable and valid | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 21. Intervention groups or case-controls recruited from the same population | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 22. Intervention groups or case-controls recruited from the same time | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 23. Study subjects randomised to the interventions | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 24. Was concealed randomisation to allocation undertaken | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 25. Adequate adjustment of allocation made in analysis of confounders | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 26. Patient losses accounted for | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 27. Sufficiently powered cohort size | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Author / year               | n  | SI Threshold | Mortality (%) | Test characteristics for prediction of mortality | Sensitivity | Specificity | PPV  | NPV  | OR   |
|-----------------------------|----|--------------|---------------|---------------------------------------------------|-------------|-------------|------|------|------|
| Curtain et al 2013 (19)     | 95 | ≥ 1.0        | 8.4           | Sensitivity: 0.88 (0.48-0.99) Specificity: 0.72 (0.62-0.81) PPV: 0.23 (0.10-0.41) NPV: 0.98 (0.90-1.0) OR: 18.3 (2.1-157.3) |
| Myint et al 2010 (30)       | 190| ≥ 1.0        | 28.4          | Sensitivity: 0.62 (0.47-0.75) Specificity: 0.69 (0.56-0.79) PPV: 0.54 (0.41-0.68) NPV: 0.76 (0.65-0.85) OR: 4.0 (2.1-7.9) |
| Nullmann et al 2014 (21)    | 553| ≥ 1.0        | 10.7          | Sensitivity: 0.42 (0.30-0.56) Specificity: 0.81 (0.77-0.85) PPV: 0.21 (0.16-0.28) NPV: 0.92 (0.90-0.94) OR: 3.2 (1.8-5.6) |

**Table S3**: CURASI score as a predictor of mortality in CAP. A threshold value ≥ 2 was used for all studies.