Does targeting hypothermia (33°C) improve the survival of out-of-hospital cardiac arrest (OOHCA) patients over targeting normothermia (≤37.5°C)?

Hypothermia: 33°C TTM
- 925 patients cooled to 33°C for 28 hours then warmed to 37°C over 12 hours in hourly increments of 1/3°C

Normothermia: ≤37.5°C TTM
- 925 patients kept ≤37.5°C for 40 hours with surface or intravascular devices used if the temperature reached 37.8°C

### Both Groups
- Sedation and normothermia were maintained for 40 hours in all patients and until 72 hours in sedated or comatose patients
- Protociled neurologic prognostication was performed after 96 hours

<table>
<thead>
<tr>
<th></th>
<th>Hypothermia</th>
<th>Normothermia</th>
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<tbody>
<tr>
<td>All cause mortality at 6 months</td>
<td>50%</td>
<td>48%</td>
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<tr>
<td>Surface or intravascular cooling device required</td>
<td>95%</td>
<td>46%</td>
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<tr>
<td>Poor functional outcome at 6 months</td>
<td>54%</td>
<td>54%</td>
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</tbody>
</table>

### Conclusion
- Hypothermic TTM protocols do not have significantly better outcomes than normothermic (≤37.5°C) protocols

### Key Practice Points
- The target temperature for TTM following cardiac arrest could be 33°C, 36°C, or ≤37.5°C.
- TTM requires close temperature monitoring, pharmacotherapy, and the use of cooling devices.
- The protociling of neuroprognostication decreases the likelihood of premature withdrawal of care.

### References:

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