Don’t Be Duped by RCTs, Use the Fragility Index!

Colin McCloskey, MD
EM/CC Fellow
University of Michigan
PENICILLIN CURES GONORRHEA IN 4 HOURS
SEE YOUR DOCTOR TODAY
P value <0.05 will fail you
I ARE SPECIAL SNOWFLAKE

WHY YOU SO MEAN?

P<0.05
Fragility Index!

P < 0.05
<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dead</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Not Dead</td>
<td>98</td>
<td>90</td>
</tr>
</tbody>
</table>

P = 0.03

<table>
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<tbody>
<tr>
<td>Dead</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Not Dead</td>
<td>97</td>
<td>90</td>
</tr>
</tbody>
</table>

P = 0.08
The Fragility Index in Multicenter Randomized Controlled Critical Care Trials*

Elliott E. Ridgeon, BMBCh\textsuperscript{1,2}; Paul J. Young, FCICM\textsuperscript{1,2}; Rinaldo Bellomo, FCICM\textsuperscript{3}; Marta Mucchetti, MD\textsuperscript{4}; Rosalba Lembo, MSc\textsuperscript{4}; Giovanni Landoni, MD\textsuperscript{4,5}
Further to the right is better...
Further to the right is better...
Less Fragile Studies....

Large Sample Size    Small P
Steroids in Sepsis

\[ FI = 0 \]
Binary Outcomes Only
RCTs... Great though Flawed

Use FI to evaluate $P < 0.05$

Calculate it today
RCTs... Great though Flawed

Use FI to evaluate $P < 0.05$

Calculate it today