

S4. Appendix 4.

Harvest Plot

This is a visual representation of the specific outcomes assessed in individual papers (refer to S5.Appendix 5 for bibliography).

Understanding the harvest plot:

The information is displayed in the following format:

The variable being examined

The relationship between variable and outcome

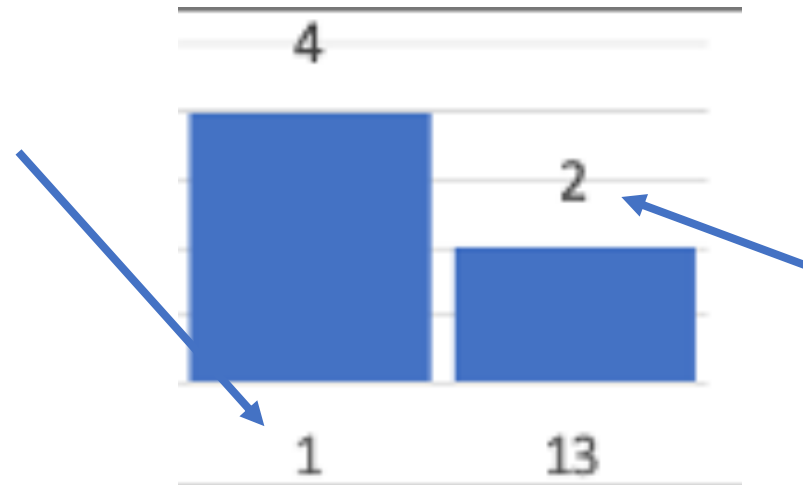
<i>Increased weight-adverse events</i>	Negative correlation	No correlation	Positive correlation
Post-operative complications			
Re-admission			

The outcome being examined

Understanding the harvest plot:

- Each bar represents one paper.


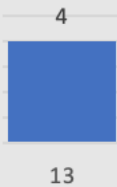
- The number at the base of each bar is a reference to the paper in the bibliography (Appendix 5)



- The number at the top of the bar is the height.
- The height represents the quality of the paper based on if it was downgraded on any of 3 parameters: bias, imprecision, indirectness.

Bias, Imprecision, Indirectness	
	Height
If not graded down	4
If graded down on 1 parameter	3
If graded down on 2 parameters	2
If graded down on 3 parameters	1

Understanding the harvest plot: Example

<u>Increased BMI -spinal cord</u>	Negative correlation	No correlation	Positive correlation
Patient-reported outcomes	 <p>4 4 4 4</p> <p>1 10 16 21</p>	 <p>4</p> <p>13</p>	

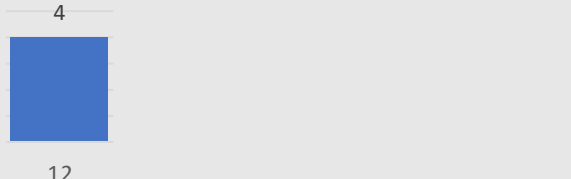
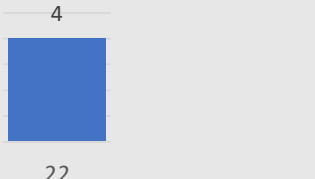
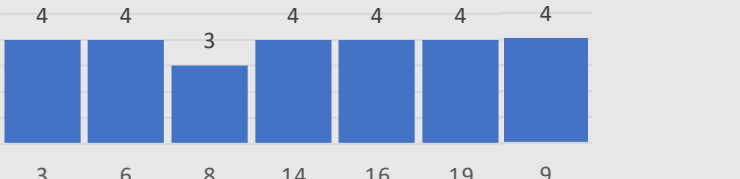


This row shows papers looking at the relationship between increased BMI and patient reported outcomes (under the spinal cord biology category):


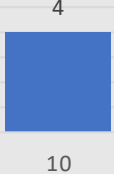

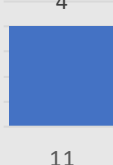

- 4 papers showed a negative correlation between these two variables,
- 1 paper showed no correlation,
- 0 papers showed a positive correlation.

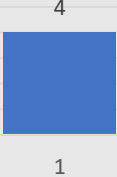

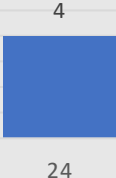

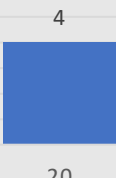
S4. Appendix 4.


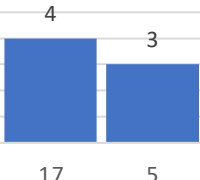
Harvest Plot: Results


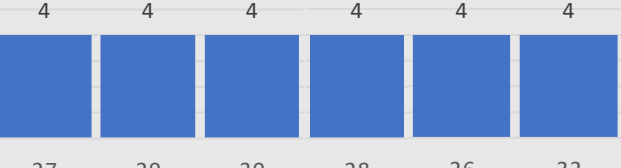

This is a visual representation of the specific outcomes assessed in individual papers (refer to S5.Appendix 5 for bibliography).

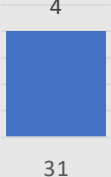

<i>Increased BMI-adverse events</i>	Negative correlation	No correlation	Positive correlation
Post-operative complications			
Mortality			

<i>Increased BMI -spinal cord biology</i>	Negative correlation	No correlation	Positive correlation
Patient-reported outcomes			
Change in JOA score			
Functional independence measure efficiency			
Reactive oxygen metabolites			

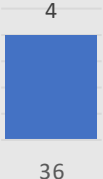
<i>Increased BMI -spinal column biology</i>	Negative correlation	No correlation	Positive correlation
Cervical alignment parameters			 <p>4 1</p>
Modic changes			 <p>4 15</p>
Loss of cervical lordosis		 <p>4 24</p>	
Adjacent segment disease		 <p>4 23</p>	
Risk of cervical spondylosis		 <p>4 20</p>	

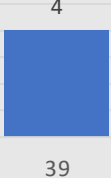
<u>Pre-operative weight loss-adverse events</u>	Negative correlation	No correlation	Positive correlation															
Post-operative complications			 <p>A bar chart with four bars. The first bar (Negative correlation) has a count of 17 and a height of 4. The second bar (No correlation) has a count of 5 and a height of 3. The third bar (Positive correlation) has a count of 2 and a height of 4. The fourth bar (unlabeled) has a count of 4 and a height of 4.</p> <table border="1"> <thead> <tr> <th>Correlation Type</th> <th>Count</th> <th>Height</th> </tr> </thead> <tbody> <tr> <td>Negative correlation</td> <td>17</td> <td>4</td> </tr> <tr> <td>No correlation</td> <td>5</td> <td>3</td> </tr> <tr> <td>Positive correlation</td> <td>2</td> <td>4</td> </tr> <tr> <td>Unlabeled</td> <td>4</td> <td>4</td> </tr> </tbody> </table>	Correlation Type	Count	Height	Negative correlation	17	4	No correlation	5	3	Positive correlation	2	4	Unlabeled	4	4
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Mortality			 <p>A bar chart with two bars. The first bar (Negative correlation) has a count of 17 and a height of 4. The second bar (No correlation) has a count of 5 and a height of 3.</p> <table border="1"> <thead> <tr> <th>Correlation Type</th> <th>Count</th> <th>Height</th> </tr> </thead> <tbody> <tr> <td>Negative correlation</td> <td>17</td> <td>4</td> </tr> <tr> <td>No correlation</td> <td>5</td> <td>3</td> </tr> </tbody> </table>	Correlation Type	Count	Height	Negative correlation	17	4	No correlation	5	3						
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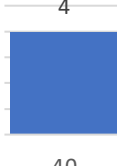
<u>Malnutrition/electrolytes- Adverse events</u>	Negative correlation	No correlation	Positive correlation
Post-operative complications		 <p>4</p> <p>34</p>	 <p>4 4 4 4 4 4</p> <p>27 29 30 28 26 32</p>
Time for fusion			 <p>4</p> <p>34</p>

<u>Malnutrition/electrolytes- Spinal cord biology</u>	Negative correlation	No correlation	Positive correlation
Functional independence measure efficiency			
Change in post-operative JOA score (RCT)			

<u>Vitamins/minerals-spinal cord biology</u>	Negative correlation	No correlation	Positive correlation
Upper extremity work capacity			 <p>4 37</p>
Change in post-operative JOA score (RCT)			 <p>4 35</p>
Duration of spinal cord injury			 <p>4 38</p>

<u>Vitamins/minerals-</u> <u>spinal column biology</u>	Negative correlation	No correlation	Positive correlation
Risk of OPLL development	 <p>A stacked bar chart with a blue top segment and a white bottom segment. The number '4' is positioned above the blue segment, and the number '36' is positioned below the white segment.</p>		

<u>Gastrointestinal health- Adverse events</u>	Negative correlation	No correlation	Positive correlation						
Post-operative complications			 <p>A stacked bar chart with a total height of 43. The top segment is labeled '4' and the bottom segment is labeled '39'.</p> <table border="1"><thead><tr><th>Category</th><th>Count</th></tr></thead><tbody><tr><td>Negative correlation</td><td>4</td></tr><tr><td>Positive correlation</td><td>39</td></tr></tbody></table>	Category	Count	Negative correlation	4	Positive correlation	39
Category	Count								
Negative correlation	4								
Positive correlation	39								

<u>Gastrointestinal health-</u> <u>Spinal cord biology</u>	Negative correlation	No correlation	Positive correlation
Patient-reported outcomes	 <p>A bar chart with two blue bars. The left bar has the value '41' written below it, and the right bar has the value '40' written below it. A horizontal bracket spans the top of both bars, with the number '4' centered above it.</p>		
Change in post-operative JOA score		 <p>A bar chart with a single blue bar. The value '40' is written below the bar. A horizontal bracket is positioned above the bar, with the number '4' centered above the bracket.</p>	