

*Letter to Editor*

## **The sum of its parts: The importance of methodology on presented data**

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I read with great interest the study by Awori et al. (2022). The authors did a commendable job of trying to answer an important clinical question about timing of arterial switch for transposition by using data from previously published studies. Specifically, the study pools survival data from previously published studies to produce composite survival curves. These kinds of analyses to develop composite survival curves have been published previously and can offer valuable insight (Loomba et al., 2016; Hill et al., 2016). The development of such curves is a rigorous process with multiple steps. In brief, the first step includes a systematic review to identify studies that may be pertinent to the current question. Second, these studies just be reviewed to identify those with actual data that is deemed of interest and quality to pool. Third, the data must be extracted. Fourth, attempts to fit the extracted data in a model should be carried out to essentially “smoothen” the data curve. This “smoothening” allows for the curves to be more accurate at time points where source data may not have been explicitly available as there are infinite number of curves that can be constructed between two points without additional data points in between. A suitable model with good fit may but always be possible but should be attempted.

The authors provide very limited information about their methods. The systematic review methodology does not share what tools were used to assess quality or bias of the studies that were reviewed. Next, the authors do not share specific information on how data were extracted. Were data extracted independently by multiple authors? Was there any system in place to check extracted data for typos or inaccurately extracted data? Additionally, was data only extracted if presented numerically within the text or tables or were data extracted from source survival curves by digitizing them? And finally once data were extracted was there an attempt to fit this data into a model? If not, were the data collected at the same point simply weight-averaged?

While the data in these composite curves may be helpful, it is difficult to ascertain what the precise implications of these data are or what their limitations may be without detailed methodology. Even reference to a study with which the methodology is shared would be ample. For instance previous studies have shared methodology described by Guyot et al. (2012). But in its current form the manuscript does not provide any details on the methodology and a study's data are only as strong as the methodology by which they are derived. The authors are encouraged to provide more insight on their methodology to further bolster the resulting composite survival curves.

### **REFERENCES**

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