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# Detecting bias in the reporting of clinical trials

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A study by researchers at the University of Leicester has revealed new ways to spot whether medical research has hidden biases. Writing in the prestigious *British Medical Journal*, Santiago Moreno and his colleagues demonstrate how to spot 'publication bias' in the reporting of clinical trials which potentially form the basis of Government and NHS health policies. They also show what mathematical adjustments can be made to remove such unintended distortion of data.

Health policies are founded on 'clinical trials': experiments done in a laboratory or with groups of patients, which produce statistical results (because no two individuals are alike). Experimental results are published in medical journals after being thoroughly checked to ensure that all the methods used were fair and accurate - but 'publication bias' can affect what gets published.

For example, trials with negative results - showing that a treatment doesn't work - may be less likely to be published than those showing that it does. And this can create a distorted view of the treatment's effectiveness when policy-makers have to decide on whether it is worthwhile.

The University of Leicester researchers- examined two new methods of statistical analysis, using data on anti-depressant use available from the United States' Food and Drug Administration (FDA). The FDA's data is considered 'gold standard' - free from bias - so it can be used to check whether statistics collected from journals, when adjusted, provide a true

picture.

Both methods investigated by the Leicester team proved effective in identifying and eliminating publication bias from medical research.

Santiago's colleagues in the research project were Professor Alex Sutton, Professor Keith Abrams and Dr Nicola Cooper, from the Department of Health Sciences, plus collaborators at the Universities of Bristol and Oregon.

Source: University of Leicester (news : web)