AMS press release labelling system for new medical research

The aim

Public trust in medical research is low. The Academy of Medical Sciences has made a set of recommendations to help raise this trust. One of these recommendations is for press releases to be given a clear label showing a) whether research findings have been through peer-review and b) a summary of the type of research.

This labelling system is meant to help journalists see at a glance the nature and significance of new research and act as an aid for press officers when discussing the work with authors.

How it works

The labels categorise the evidence by whether it is peer-reviewed or not, what type of study it is and, when relevant, what form of life has been studied. The press officer should determine which of the below labels apply, discussing it with the researchers where needed. In a few cases the type of evidence affects the language that should be used, for example with observational evidence it is not possible to determine cause and effect so releases should avoid saying X causes Y, X reduces Y, X is good for you or X should be banned.

There is guidance for which labels to use, which issues press officers should address with scientists and how the language matters.

How it looks

The subject line of the email will be unchanged, but the labels, consisting of just a few words, will be written at the top of each release. They can go above or just beneath the title or subheading, or in a way that suits your formatting e.g. in a box on the top right-hand side – as long as the labels are clearly visible at or near the top of the press release.

Peer-reviewed *Experimental study* *Animals*

Title of press release

Or

Peer-reviewed *Simulation*

Title of press release

The labels

Peer-reviewed?	Type of evidence?	Subject of study?
Peer-reviewed Not peer-reviewed	Meta-analysis Systematic review Randomised Controlled Trial Experimental study Observational study Case study	People Animals Human embryos Cells
	Simulation / modelling Literature review Survey Opinion piece / editorial	NOT APPLICABLE

Guidance

Peer-reviewed?

The peer-review system uses independent experts to scrutinise research. Peer-review is far from perfect, but it gives some confidence in the quality and robustness of the evidence. Journalists will still report on research that has not been peer-reviewed, but they should be aware that it involves greater care or a different tone to the reporting e.g. in a feature piece.

Peer-reviewed – The entire study (including methods, results and discussion) was sent for independent, external review by relevant experts as part of a journal publication process.

Not peer-reviewed – For anything that doesn't fit into the 'peer-reviewed category' including, but not limited to, all conference abstracts, posters or presentations, and editorials and opinion pieces, even if they are being published in a journal.

Type of evidence?

Use the label that best applies. For research papers that involve more than one type of evidence, use the label that applies to the key question the researchers were trying to answer i.e. the primary outcome, or use more than one label if necessary.

Meta-analysis – The author(s) combined the results, or data, from multiple previous studies and performed a new statistical analysis.

Systematic review – The author(s) collected and critically analysed multiple studies using criteria that were set before the start, as opposed to a literature review which can include any papers that provide evidence for a particular point.

Randomised Controlled Trial – The author(s) put the test subjects (often people or animals) in different groups at random and then manipulated at least one variable to see what impact it had. An RCT will include a control group that has not received the treatment being tested.

Experimental study – The author(s) manipulated at least one variable to see what impact it had on the subjects (often people or animals). The subjects may have been put into different groups, but not at random. There may, but will not always, be a control group that has not received the treatment being tested.

Sometimes datasets are re-analysed to answer a new question; if the original study was not set up to answer this new question then this new research may not fit the criteria of an experimental study or RCT. If in doubt, use the label 'observational study'.

Observational study – The author(s) investigated whether X correlates with Y so cannot demonstrate cause and effect. The author(s) did not manipulate a variable, though they may have tried to measure it e.g. frequency of consuming diet drinks and obesity, where those who are obese may be more likely to drink diet drinks. A relatively new type of study, which most closely fits under the observational study banner, is Mendelian randomisation (MR). MR is when the author(s) used data on genetic variation among people as a way of exploring e.g. lifestyle or environmental factors that might influence disease. By grouping people according to their genetics they attempt to 'control for' other factors that might influence the outcome. The data will be from one or more observational datasets. This

method is less likely to be affected by confounding factors than other types of observational studies, but it still relies on assumptions that cannot be fully tested and may be violated, and can only tentatively suggest, not prove, causal relationships. For MR studies the label ***Observational (Mendelian randomisation)*** can be used.

Case study – These consist of observations or data from a single patient or individual case e.g. in the form of a report that says 'We found patient X had a surprisingly high level of Y'.

<u>The following study types do not get labelled as being a study in people, animals, human embryos or cells:</u>

Simulation / modelling – The author(s) used a computer simulation or mathematical model to predict the outcome, rather than measure real-world variables. The original values put into the model may have come from real-world measurements.

Literature review – Summarises and references a number of previously published studies on the topic, but does not include a new peer-reviewed re-analysis of data.

Survey – A study based solely on the responses to a series of questions. The survey label is not meant for studies where participants in a trial are given treatments x or y and then asked questions about their responses in follow-up.

Opinion piece/editorial – Based on the opinions of the author(s)/institution and may reference new research but does not include original new data. Always labelled as not peer-reviewed.

<u>Subject of study</u>: Use all of the following labels that apply most appropriately and leave blank if none do. These labels are only to be used for new peer-reviewed data that appear in a meta-analysis, RCT, experimental, observational or case study.

People – This is a study based on research using people.

Animals – This is a study based on research on whole animals.

Human embryos – This is a study based on research using human embryos.

Cells – This is a study based on research in micro-organisms, cells, tissue, organs or non-human embryos.

If so many labels apply that you can't fit them in, or if you're press releasing an unusual type of study which isn't covered by one of the labels – don't worry. We know there will be a small number of exceptions when the labelling system can't be applied. If in doubt, or if you'd like to ask advice, please contact us at the Science Media Centre.

As well as using the labels at the top, please feel free to provide in the notes to editors either the link to the online guidance or the definitions given here of the labels you've picked – some journalists have said that that along with the labels would be useful.

Language to use

A Cardiff university research team that has been looking into the impact of press releases, recommends the following simple guide that applies to 'causal words' such as *reduces*, *cuts*, *harms*, *kills*, *boosts*, *increases*, *helps*.

If writing about experimental evidence then use 'can reduce', 'can boost' or simply 'reduces' or 'boosts'.

If writing about observational evidence (or Mendelian randomisation), that can only show correlation not causation, then use 'might reduce', 'may boost', 'could harm' or 'is associated with increases'.

The Cardiff researchers report that this is a relevant and meaningful distinction for non-experts because readers are already sensitive to this difference in causal language. Equally importantly, this information can be carried by the headlines and prominent claims themselves, which are the parts of a news story most read, and that in the digital age, most widely circulate via social media.