PROTOCOL

Title
Are long conflict of interest statements fit for purpose?

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Rationale
Conflict of interest (COI) is defined by the potential influence of "professional judgment concerning a primary interest (such as patients' welfare or the validity of research) by a secondary interest (such as financial gain)". COI has been widely accepted as a mandatory item of reporting by most scientific journals as recommended by the ICMJE because COIs may influence the design, conduct, analysis and reporting of a trial (2). The optimal method for declaring COI is still unclear and varies from brief statements to enormous lists which can make it difficult to discern who is conflicted and in what way in relation to the study question. When reporting COIs, several situations can arise. First, no COI are declared because the authors have no interest with the industry funding the product being tested. Secondly, no COI are declared because authors choose to deliberately conceal them in order to appear independent. Third, no COI are declared because authors have themselves made a judgement that their potential conflicts are not conflicts. Last, a declaration of all COI is made by the authors or mandated by journal policy in a way that makes it difficult for a reader to decide if there was a true conflict in relation to the question being posed in the publication and if so what the nature and direction of that conflict is likely to be. We denote this latter category of difficult-to-read COIs as 'smoke-screen' conflicts and is the focus of this study. They typically involve a cut and paste exercise for experienced clinicians who regularly take part in many companies sponsored drug trials. We do not suggest that authors deliberately use such long lists to conceal the most relevant conflict in the publication as such lists may be simply reflect a journal requirement. What we do hypothesise is that such exhaustive conflicts depicting all possible financial conflicts with drug companies over many years (whether related to the study drug or not) are counterproductive and opaque. We suggest that if a drug is being evaluated in an industry sponsored trial, a clear and simple statement should indicate which authors have a direct financial conflict with that product so that readers can make an appropriate judgement of the study with such information readily at hand. It should not be necessary for readers to have to trawl through a long list of COIs (many of which are irrelevant to the study question), or worse still to glaze over them and ignore them, or to spend a lot of time undertaking searches to understand which companies or parent companies are related to the product under test.

Primary objective
To determine whether long lists of COIs lead to difficulties for readers in identifying the most relevant COIs in dermatological industry-funded randomized controlled trials (RCTs) of drug treatments.

Secondary objectives
- To assess the time required to identify if the authors have a direct conflict with that company.

- To evaluate readers' confidence in their COI conclusions.

Study design
- We will perform a prospective observational study, with participants (readers) recruited from local clinical dermatologists and researcher within dermatology units.
- A sample of 4 RCTs (to ensure the feasibility of the study) with a long list of COIs (defined by more than 1/3 page of the article) in one skin condition (eczema/atopic dermatitis) will be selected.
- A panel of typical readers (n=20-30) will be asked to complete an online survey relating to these 4 papers. Each reader will have to answer i) the name of the company (or subsidiary) who developed and made the drug being tested (ii) whether any (and which) of the authors have a direct financial conflict with that company. No utilisation of other sources (e.g. Internet) to answer the survey will be authorized.

Primary outcome
Percentage of readers who correctly both identified the company that developed the drug and whether any (and which) of the authors have a direct conflict with that company.

Secondary outcomes
- Percentage of readers who correctly identified the company who developed the drug
- Percentage of readers who correctly identified whether any (and which) of the authors have a direct conflict with that company
- Time in minutes between the start of reading the article and the identification of direct conflict with the company that developed the drug.
- Readers' confidence in their COI conclusions using an ordinal 6-point Likert scale (rating 1, not confident at all to 6, completely confident).

Methods
1/ Searching strategy for studies
We will include RCTs on eczema evaluating a systemic or topical treatment which were funded by the industry and published in the 4 highest-impact factor general medicine journals (The Lancet, BMJ, JAMA and NEJM), or in the 4 highest-impact factor dermatology journals (BJD, JAMA Dermatology, JAAD and JEADV), or in the 4 highest-impact factor allergology journals (Allergy, JACI, JACI Practice, Pediatric Allergy Immunology), with no restriction date.
Database: we will use OVID Medline database. The equation research is detailed in Appendix (3).

Inclusion criteria:
- Industry funded eczema RCT
- Evaluating a systemic or topical treatment
- With a long list of COIs defined as a list of COIs more than 1/3 page of the article
- English language
Exclusion criteria:
- No description of COIs
- Conference abstract

Study selection: the selection for inclusion of articles will be done by one author (SL). We arbitrarily aim at identifying at least 4 articles that fulfill the eligibility criteria.
We will initially screen the 100 most recent articles published to identify the relevant articles. If necessary, another 100 articles will be screened.
A sample of 4 RCTs from different general medical and dermatology journals will be selected (SL, HCW).

For each RCT included, two authors will independently evaluate (i) who developed and made the drug being tested (ii) whether any (and which) of the authors have a direct conflict with that company. Differences will be resolved by a third reviewer.

2/ Selection of participants/readers
Eligible participants will be local UK dermatologists, dermatology trainees and researchers.

Extraction data
For including studies (data extracted by the 2 authors and by readers)
- First author, year, journal
- Primary experimental drug tested
- Company who developed and made the drug being tested
- Authors who have a direct conflict with the company responsible for drug being tested
- Localisation of the funding statement and COIs statement in the article

For readers
- Sex, age
- Activity: private practice, public practice, researcher
- Role (consultant, trainee, not applicable)
- Number of years within dermatology (if applicable)
- Number of scientific articles read by month
- Time in minutes needed to identify direct conflict with the company that developed the drug
- Confidence in COI conclusions using an ordinal 6-point Likert scale (rating 1, not confident at all to 6, completely confident).

Statistical analysis
Descriptive statistics only will be used to document the proportion of readers fulfilling the primary and secondary outcomes. Time in minutes to work out the COI will be reported as continuous data with means and standard deviation or median with interquartile ranges for data with non-normal distribution. We will stratify the results by readers' characteristics.

Expected duration of the study
This study will be conducted over a 3-month period from January to March 2023.

Anticipated results
The results will be generalized to journals that tend to opt for the "include everything and let others work it out".
We expect to show that readers are in difficulty to make judgement on whether any of those mentioned in the long list of COIs are in fact potential COIs.
By showing this, we will encourage to use a simpler declaration of COIs. We suggest to use the "ACE" framework to make COI statement simpler and clearer for both authors and readers: Author(s) received financial support from Company X (that is a subsidiary of Company Y) who developed/manufactured the Experimental treatment drug in this study.

Study team
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Participant stipends and payments
Participants will not be paid to participate in the study.

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Appendix
Search strategy in Medline (equation research used in the Greatdatabase)

1. randomized controlled trial.pt.
2. controlled clinical trial.pt.
3. randomized.ab.
4. placebo.ab.
5. drug therapy.fs.
6. randomly.ab.
7. trial.ab.
8. groups.ab.
9. 6 or 3 or 7 or 2 or 8 or 1 or 4 or 5
10. (animals not (humans and animals)).sh.
11. 9 not 10
12. exp Dermatitis, Atopic/
13. atopic dermatitis.mp.

14. atopic eczema.mp.
15. exp NEURODERMATITIS/
16. neurodermatits.mp.
17. infantile eczema.mp.
18. childhood eczema.mp.
19. Besniers' Prurigo.mp.
20. exp Eczema/ or eczema.mp.
21. 17 or 12 or 20 or 15 or 14 or 18 or 13 or 16 or 19
22. 11 and 21
23. lancet.jn.
24. bmj.jn.
25. "new england journal of medicine".jn.
26. jama.jn.
27. jama dermatology.jn.
28. "journal of the american academy of dermatology".jn.
29. "british journal of dermatology".jn.
30. "journal of the european academy of dermatology & venereology".jn.
31. allergy.jn.
32. "journal of allergy & clinical immunology".jn.
33. "journal of allergy & clinical immunology in practice".jn.
34. pediatric allergy & immunology.jn.
35. 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34
36. 22 and 35