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## Memorandum

To: Trialists

Fr: Curtis Meinert

Re: How many does it take to write a clinical trials paper?

Anywhere from one to dozens.

The International Committee of Medical Journal Editors (ICMJE) specifies requirements for authorship (<http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>).

- 1: Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work;
- and**
- 2: Drafting the work or revising it critically for important intellectual content;
- and**
- 3: Final approval of the version to be published;
- and**
- 4: Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Table 1 gives counts of authors on papers indexed to the publication type “randomized controlled trial” published in 2020 appearing in NEJM, JAMA, Lancet, and BMJ. The median number of authors ranged from 9 (BMJ) to 21 (NEJM).

Table 2 gives combined counts for those four journals for years 1990, 1995, through 2020. The trend is for more authors over time. The median number of authors increased from 5 in 1990 to 14 in 2020.

Table 3 gives counts of all MEDLINE publications indexed to “randomized controlled trial”. The median number of authors increased steadily from 2 for 1970 to 7 for 2020. The publication with the most authors, 60, was in the NEJM (A Trial of Lopinavir–Ritonavir in Adults Hospitalized with Severe Covid-19; May 7, 2020; vol. 382 no. 19).

Of the four conditions required by the ICMJE for authorship, the second, “*drafting the work or revising it critically for important intellectual content*”, is most specific. It is difficult to imagine 60 people doing that.

The steady increase in number of authors over time reflected in Table 3 is because paper writing has become more complicated requiring more authors or the requirements for authorship are being relaxed so as to list more people to facilitate promotions.

**How many does it take to write a clinical trials paper?****16 July 2021****Table 1: Authors on 2020 MEDLINE publication type “randomized controlled trial”; NEJM, JAMA, Lancet, and BMJ**

Journal	No. publications	Total no. authors	Mdn no. authors	IQ range
NEJM	161	3,450	21	14-29
JAMA	394	5,798	13	8-20
Lacent	380	7,322	18	13-25
BMJ	326	3,527	9	6-14
Total	1,261	20,097	14	6-29

**Table 2: Authors listed on MEDLINE publication type “randomized controlled trial” for NEJM, JAMA, Lancet, and BMJ combined**

Year	No. publications	Total no. authors	Mdn no. authors	IQ range
1990	225	1,262	5	3-8
1995	244	1,455	6	4-9
2000	286	2,270	8	5-11
2005	295	3,144	10	7-14
2010	397	5,479	12	9-18
2015	1,005	14,354	13	8-19
2020	1,261	20,097	14	3-21

**Table 3: Counts of authors listed on MEDLINE publication type “randomized controlled trial”; 1970 thru 2020**

Year	No. publications	Total no. authors	Mdn no. authors	IQ range
1970	302	782	2	1-4
1975	797	2,707	3	2-4
1980	1,735	6,518	3	2-5
1985	3,102	13,518	4	3-6
1990	5,809	27,318	4	3-6
1995	9,222	46,519	5	3-7
2000	10,108	58,814	5	4-7
2005	14,843	92,667	6	4-8
2010	20,668	142,533	6	4-8
2015	27,659	216,029	7	5-10
2020	21,562	187,070	7	5-10