Authorship ignorance: views of researchers in French clinical settings

B Pignatelli, H Maisonneuve, F Chapuis

Objectives: To assess the knowledge and behaviour of researchers regarding criteria for authorship, and the practices of ghost and gift authorship.

Design: Semidirective interviews of senior clinical researchers.

Setting: University hospital.

Participants: Thirty-nine main investigators of clinical research programmes.

Main measurements: Awareness and use of International Committee of Medical Journal Editors (ICMJE) criteria for authorship, and perceptions about ghost and gift authorship.

Results: A total of 48 protocols submitted by 42 principal investigators between 1994 and 1996 were identified. Thirty-nine investigators were contacted; 37 (one of whom delegated a co-author) were interviewed between May 2002 and March 2003. Two co-authors of two principal investigators were also interviewed. In all, 42 studies were represented. The interviews lasted for 40–90 minutes and were conducted with openness and respect for confidentiality.

The choice of names of co-authors did not follow the ICMJE recommendations. Half of the respondents stated they were aware of criteria for authorship and knew of ICMJE, but most of them did not cite any of the ICMJE criteria among those they applied in deciding authorship. Most of them disagreed with the obligation to meet the three criteria justifying co-authorship because they found these too rigid and inapplicable. Gift authorship was a common practice; 59% of the respondents had been a recipient of gift authorship. Twenty-five (64%) were aware of ghost authorship and the majority considered it questionable and blameworthy.

Conclusions: The ICMJE criteria were ignored by clinicians at a university hospital. Ghost and gift authorship were frequent among them. There is a need for French guidelines for authorship to be prepared and implemented.

Definitions of authorship and the behaviour of authors vary in different countries and among specialties. Criteria such as those of the International Committee of Medical Journal Editors (ICMJE; http://www.icmje.org/) were first published in 1978. These uniform requirements have been regularly updated (last update October 2004), but the authorship criteria do not seem to have been responsible for much change in authors’ behaviour. The complexities of academic promotion, based largely on the number of publications rather than on the quality of articles, contribute to the opacity of the way in which authorship is attributed. Confidence should be the basis of the system but the rules and guidelines do not seem to be known by authors. False authorship is a concern of most editors of prestigious journals, but editors can have little influence on the behaviour of scientists. Questions of authorship are debated at meetings such as the peer review congresses, but research is difficult because authors do not like to disclose their practices. A survey among 66 staff from a British medical faculty studied their awareness and use of criteria for authorship, and their experience of authorship developments. Fifteen respondents supported criteria for authorship but few knew about or used those that were available. Gift authorship was perceived as common. A difference was observed between editors’ criteria and researchers’ practice.

Most studies concerning this question have been conducted in English speaking countries. Only a few results from other countries have been presented. Such reports include a survey of authors of articles published in the Chinese Medical Journal, the Chinese Journal of Neurology, and the Chinese Journal of Pediatrics, which showed that 197 of 524 (38%) authors met the ICMJE criteria. A study of authors submitting articles to Revista Medica de Chile showed low compliance with the criteria of authorship. In France, authorship has not been investigated, and researchers and clinicians have a poor understanding of authorship criteria; they follow the advice of senior professionals. The topic is rarely discussed in French biomedical journals, but there is informal consensus that problems are encountered everywhere.

We conducted a study of current practices in the preparation and publication of clinical research studies. We sought to ascertain researchers’ behaviour during the publishing process and learn their views on the authorship of biomedical articles.

METHODS We selected all clinical research programmes that were financed by the Projets Hospitaliers de Recherche Clinique (national funding from the Ministry of Health) for research teams at the Lyons public hospitals in 1994, 1995, and 1996. The main investigator of each programme received a letter (dated 11 May 2002), signed by the Chairman of the Scientific Committee of Lyons Hospitals (Professor L Collet, MD), introducing the study and asking for a 30-minute interview. Telephone follow-up was carried out to arrange an appointment. Another letter was sent on 25 October 2002 to the main investigators who had not arranged appointments by that date.

Abbreviation: ICMJE, International Committee of Medical Journal Editors
Semidirective interviews were conducted by one of the authors (BP) at the interviewees’ workplace. An introductory statement was provided to gain the confidence of the participants, and confidentiality was agreed orally before starting the interview. A questionnaire in French (available from the authors on request) was used and yes/no answers were obtained during the interview and reported on a transcript. Handwritten comments were added when the interviewees were talkative.

All answers were tabulated and the data were analysed using the software program SPSS (http://www.spss.com).

RESULTS
A total of 48 protocols submitted by 42 principal investigators between 1994 and 1996 were identified. Thirty-nine investigators were also interviewed. The investigators were representing 42 studies; two co-authors of two principal author were interviewed between May 2002 and March 2003 between 1994 and 1996 were identified. Thirty-nine investigators participated in the study, and 21 had read the galley proofs. Nineteen were corresponding authors, 26 had written parts of the article, 27 had critically assessed the statistical analysis. Fourteen of the 28 principal investigators interpreted the collected data; five gave advice on the data gathering, 13 in the data analysis, and 27 in the preparation of the final draft. Nineteen were corresponding authors, 26 signed the submission form declaring that they had had a role in the literature search; 27 had participated in the study conception and protocol design; 22 had had a role in recruiting patients, ought to be acknowledged.)

Table 1: Quality of the 39 interviews on a four-digit scale assigned by the interviewer at the end of each meeting

<table>
<thead>
<tr>
<th>Quality</th>
<th>Poor</th>
<th>Average</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleanliness and spontaneity of answers</td>
<td>2</td>
<td>7</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>Cooperation during the interview</td>
<td>5</td>
<td>5</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Sympathy and openness</td>
<td>2</td>
<td>9</td>
<td>16</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 2: Process for choosing co-authors, as expressed by the 28 principal investigators who participated in writing the articles

<table>
<thead>
<tr>
<th>Choice of co-authors</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solely by the main author</td>
<td>6</td>
<td>21</td>
</tr>
<tr>
<td>After consultation with co-authors</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>On request of co-authors</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Another way</td>
<td>16</td>
<td>57</td>
</tr>
<tr>
<td>Use of criteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>25</td>
<td>89</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>Use of one of the ICMJE criteria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>86</td>
</tr>
<tr>
<td>Intervention of co-authors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>20</td>
<td>71</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td>29</td>
</tr>
<tr>
<td>Order of co-authors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solely by the main author</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>After consultation with co-authors</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>On request of co-author</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Another way</td>
<td>18</td>
<td>64</td>
</tr>
</tbody>
</table>
Twenty-five (64%) respondents were aware of ghost authorship and the majority considered it questionable and blameworthy (table 5). Its frequency was regarded as far from negligible and the interviewees stated that they had often received it or allowed it themselves. The researchers identified three major sources of ghost authorship: authoritarianism prevailing in some teams and concomitant disrespect; dishonest appropriation or lack of recognition of work; and relational, scientific or interest conflicts. The frequent occurrence of gift and ghost authorship is also shown by the data in table 6.

### DISCUSSION

For the first time in France researchers have been interviewed on their publication practices; this has shown that the ICMJE criteria are being ignored. Ghost and gift authorship are frequent. There is a need for French guidelines on authorship to be proposed and implemented.

#### Quality of the study

The interviews lasted for more than the 20–30 minutes planned and their quality showed the great interest of the respondents in the subject of this study. All the respondents were senior researchers and agreed to share their experiences openly. These topics are not usually discussed and their anonymity was necessary. These researchers agreed to give their opinions on authorship behind closed doors. We preferred that interviews should be conducted by the same person, even if, as a result, the sample of respondents had to be smaller. The quality of the discussions and the atmosphere of confidence established between the interviewer and the respondents allowed more accurate data to be obtained than if we had mailed a questionnaire accompanied by a reply envelope. An open discussion after the questionnaire allowed various matters to be clarified with the participants. The questionnaire was based on previous ones used elsewhere. It was adapted to the French language and verified as suitable for French scientists. The completeness of the data obtained and the good understanding achieved with the interviewees confirmed us in our choice of an interview method.

The interviews were carried out during 2002 and at the beginning of 2003 for researchers who were funded between 1994 and 1996. This time lag was necessary to allow for time to publish the articles. Answers were based on memory, but if we had mailed a questionnaire accompanied by a reply envelope. An open discussion after the questionnaire allowed various matters to be clarified with the participants. The questionnaire was based on previous ones used elsewhere. It was adapted to the French language and verified as suitable for French scientists. The completeness of the data obtained and the good understanding achieved with the interviewees confirmed us in our choice of an interview method.
the study focused on specific clinical programmes. The
decision to stress specific studies, as well as the wide
experience of these senior researchers, assured our data of
extra validity. The information obtained (tables 4–6) was
based on experience and called for tact and openness during
the interviews. Some resistance was noted at the beginning
of the interviews and some participants were afraid that we
would embarrass them. The length and quality of the
interviews showed that this problem was easily overcome.
The behaviour of the interviewees showed that they had
begun to think about their publication practices, maybe for
the first time.

Ignorance of the ICMJE criteria
As shown in a British study,1 ICMJE criteria are ignored by
researchers. Bhopal et al showed that scientists agreed with
the three criteria for authorship after these were explained.1
The French researchers agreed fully with the first two
(substantial contribution to conception and design, or
acquisition of data, or analysis and interpretation of data;
drafting the article or revising it critically for important
intellectual content), but had mixed views about the third
(final approval of the version to be published). Their views on
this last criterion could be questioned in view of the high
frequency of ghost and gift authorship. As found in other
studies, meeting of the three ICMJE criteria was rejected;19
these criteria are viewed as being too strict to apply. The
frequency of gift and ghost authorship was higher than
observed in previous studies.1 The hierarchical structure common in French universities may
explain this finding. We interviewed heads of department
who wanted to be included as an author on any article from
their department. It would have been interesting to interview
young researchers on these practices. Behaviour between the
generations is changing in clinical practice but is it changing
in authorship practice?

How can this ignorance of good practice in authorship
be explained?
We were surprised by the high frequency of gift and ghost
authorship. These practices seemed quite common; few
people question them and they are seen as normal in most
cases. It is a serious problem, about which there is very little
ethical discussion. The behaviour of researchers is usually
very ethical; they apply good methodological practice in their
scientific activities. However, when they discuss authorship
and decide on the names that are to appear on an article, no
guidelines are followed. They have no precise criteria for
authorship and, if any criteria are used, these are decided
within individual teams. Rules for authorship are insuffi-
ciently taught in France. There are many hypotheses to
explain this behaviour: power, egoistic satisfaction, prestige,
liberty, the “publish or perish” syndrome, and the evaluation
of job candidates according to the number of their publica-
tions rather than quality.

How can authorship understanding be improved in
France?
This situation has a negative impact on many research teams
in medicine, and is responsible for much conflict and hard
feelings that last for life. We do not know the real impact on
academic promotion. The translation and adaptation of
English guidelines will not be the best way to improve the
situation in France. Such guidelines may be rejected and the
implementation of any rules would then be delayed. Guidelines on authorship should be prepared by profes-
sionals. Three bodies could legitimately cooperate in this
process: (1) learned societies, which have a mission to
promote research; (2) representatives of biomedical journals;
and (3) public research institutes and national agencies. It
will take time to achieve success and the behaviour of
scientists will have to change. It could take a generation to
improve authorship practice in France.

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BP, HM, and FC conceived and implemented the study; BP conducted the
interviews and data analysis; HM and BP wrote the article; FC is
guarantor of the article.

REFERENCES
1 Bhopal R, Rankin J, McCall E, et al. The vexed question of authorship: views of
2 Rennie D, Flanagin A. Authorship! Authorship! Guests, ghosts, drafters,
3 Flanagin A, Carey LA, Fontanarosa PB, et al. Prevalence of articles with
honorary authors and ghost authors in peer-reviewed medical journals. JAMA
4 Rennie D, Flanagin A, Yank V. The contributions of authors. JAMA
5 Rennie D, Flanagin A, Smith R, et al. Fifth international congress on peer
review and biomedical publication. Call for research. JAMA 2003;289:1438.
6 Wheelhouse L, Shouuch Q, Yue Q. Authorship of published medical papers in
three Chinese medical journals (Poster presented 2001 Sept 15). Proceedings
of the 4th International Congress on Peer Review in Biomedical Publication;
7 Reyes H, Jascard M, Hrskovcic V. Authorship in a medical journal from a
developing country (Poster presented 2001 Sept 16). Proceedings of the 4th
8 Paneth N. Separating authorship responsibility and authorship credit for a
proposal for biomedical journals. Reader response to authorship. Am J Public
Health 1998;88:624–6.
9 Hoon WP, Walvoort HC, Overbeke AJ. What are the factors determining