

1 It is still PCP that can stand for *Pneumocystis* Pneumonia: appeal for generalized use of only
2 one acronym.

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46 Summary

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48 Twenty-years ago, considering the host specificity of *Pneumocystis* species, the human-derived
49 *Pneumocystis*, *Pneumocystis carinii* formae specialis *hominis*, was renamed *Pneumocystis*
50 *jirovecii*. *Pneumocystis carinii* formae specialis *carinii* was finally renamed *Pneumocystis*
51 *carinii* and kept for the species derived from *Rattus norvegicus*. *P. jirovecii* is now widely used
52 by most authors. The PCP acronym that initially referred to “*Pneumocystis carinii* Pneumonia”
53 was contemporaneously redefined to stand for *Pneumocystis* Pneumonia in order to avoid
54 changing the acronym of the name of the disease that clinicians have used for several decades.
55 Using analysis of multidata bases on PubMed, we have noted a recent acceleration in the use
56 of PJP for *Pneumocystis jirovecii* pneumonia, which may be grammatically correct but not in
57 accordance with retaining PCP, which was proposed in the early 2000s. Through this reminder,
58 in order to standardize the literature on *P. jirovecii*, we plead for the use of only one acronym,
59 PCP.

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61 Lay summary

62 Through this reminder on *Pneumocystis* nomenclature, we plead for the use of only one
63 acronym, PCP, the retention of which was proposed in the early 2000s, and which currently
64 stands for *Pneumocystis* Pneumonia.

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66 *Pneumocystis jirovecii* is an ascomycete, specific to humans, that is characterized by high
67 tropism for the lungs and airborne host-to-host transmission [1]. To the best of our knowledge,
68 the combination of host specificity and this mode of transmission represents a unique
69 phenomenon in medical mycology. *Pneumocystis* pneumonia (PCP) was a major cause of
70 morbidity and mortality among HIV-infected populations in the nineteen eighties [2, 3].
71 Nonetheless, it remains the main cause of AIDS-defining illness in developed countries [3]
72 while an increased frequency of PCP in non-AIDS patients with defects of cellular or global
73 immunity is reported [4]. A total of about 400,000 PCP cases may occur each year worldwide
74 with a high mortality rate of up to 18% [5]. The fungus is also involved as a comorbidity factor
75 in acute or chronic pulmonary diseases [6]. For these reasons, *Pneumocystis* infections are still
76 a public health issue as attested by about 200 annual publications available on ncbi.nlm.nih.gov
77 (PubMed).

78 During the 7th International Workshop on Opportunistic Protists (IWOP) meeting in 2001,
79 considering the host specificity of *Pneumocystis* species in mammals, participants decided to
80 rename *Pneumocystis carinii* formae specialis *hominis*, the human-derived *Pneumocystis*,
81 *Pneumocystis jiroveci* in honor of Professor Otto Jirovec [7, 8]. On the other hand,
82 *Pneumocystis carinii* formae specialis *carinii*, was renamed *Pneumocystis carinii*, which was
83 kept only to designate the species derived from *Rattus norvegicus*. Indeed, PCP in humans is
84 an anthroponosis and not a zoonosis as previously acknowledged. Although, this change was
85 the subject of debate, it is now widely used by most clinicians and biologists [9-15].
86 Incidentally, the name *Pneumocystis jiroveci* which was originally published in the incorrect
87 form bearing a single ‘i’ at the end, was later corrected to *Pneumocystis jirovecii* with the double
88 ‘i’ ending [17] considering recommendations of the Code of Botanical Nomenclature (ICBN).
89 Using analysis of multidata bases on ncbi.nlm.nih.gov (PubMed), we identified 1,479 citations
90 comprising *P. jirovecii* vs. 879 citations comprising *P. jiroveci* during the period from 2002 to

91 2020. There has been a gradual decline in the use of "*jiroveci*" over the past 12 years, although
92 it is still used as evidenced by the 37 citations in 2020 (figure 1).

93 During the 7th International Workshop on Opportunistic Protists (IWOP) meeting in 2001,
94 participants decided to keep the PCP acronym to refer to the disease, despite the new term
95 *Pneumocystis jirovecii* referring to the fungus. Indeed, the PCP acronym initially referred to
96 "*Pneumocystis carinii* Pneumonia" but was redefined so that now PCP stands for *Pneumocystis*
97 *Pneumonia* (see reference 7, page 185, 3rd paragraph and reference 8 page 893, 3rd paragraph).
98 Although the term *Pneumocystis jirovecii* pneumonia, in reference to a pneumonia caused by
99 *Pneumocystis jirovecii*, is grammatically correct, the acronym PJP is not in accordance with
100 what was proposed [7, 8]. This change of the meaning of PCP was proposed in order to avoid
101 changing the acronym of the name of the disease that clinicians and researchers have used for
102 several decades to designate the disease in humans and animals regardless of the species of
103 *Pneumocystis* involved. Indeed, it would not be convenient to use at present *Pneumocystis*
104 *carinii* Pneumonia (PCP) or *Pneumocystis wakefieldiae* Pneumonia (PWP) in *Rattus*
105 *norvegicus*, *Pneumocystis oryctolagi* Pneumonia (POP) in *Oryctolagus cuniculus*,
106 *Pneumocystis muris* Pneumonia (PMP) in *Mus musculus*, *Pneumocystis macacae* Pneumonia
107 (PMP) in *Macaca* sp., *Pneumocystis canis* Pneumonia (PCP) in *Canis lupus familiaris* and so
108 on. Using analysis of multidata bases on ncbi.nlm.nih.gov (PubMed), we identified 1,073
109 citations comprising PCP vs. 274 citations comprising PJP during the period from 2004 to 2020.
110 The first article using PJP was effectively published in 2004, although the revision of the
111 nomenclature was proposed in 2001. We have noted an acceleration in the use of PJP compared
112 to PCP over the past two years, with 48 to 64 citations of PJP vs. 83 to 98 citations of PCP,
113 between 2018 and 2020 (figure 2). Most of those latter indicated "*Pneumocystis jirovecii*
114 Pneumonia (PCP)" instead of "*Pneumocystis* Pneumonia (PCP)". This ambiguity remains to be
115 resolved.

116 In conclusion, in order to standardize the literature on *P. jirovecii*, not to change the long-term
117 behaviors of clinicians, and to designate the disease both in animals and humans by the same
118 terms, we plead for the use of only one acronym, and specifically PCP that stands for
119 *Pneumocystis* Pneumonia as proposed in the early 2000s. Be that as it may, the use of PJP will
120 likely continue but it may be limited by the present reminder.

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164 Figure captions

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166 Figure 1. Citations comprising *P. jirovecii* vs. citations comprising *P. jiroveci*, indexed on
167 ncbi.nlm.nih.gov (PubMed) over the period from 2002 to 2020.

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169 Figure 2. Citations comprising PCP vs. citations comprising PJP, indexed on ncbi.nlm.nih.gov
170 (PubMed) over the period from 2004 to 2020