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Comment on: Antiepileptic prescribing to persons living with dementia residing in nursing homes: A tale of two indications

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1 **Comment on: [Antiepileptic prescribing to persons living with dementia residing in nursing homes:**
2 **A tale of two indications]**

3 ***Comment on Antiepileptic prescriptions***

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16 *To the Editor:* In the January edition of the Journal, Candon et al.(1) reported an analysis of
17 antiepileptics prescription in nursing home residents with Alzheimer's disease and related dementias
18 (ADRD) between 2015 and 2019. On a national sample of 973,074 residents, an increasing trend in
19 antiepileptics prescribing was noticed whereas prescriptions of antipsychotic and opioids decreased.

20 We conducted a single-center retrospective observational study in a long-term care unit (n= 11, 42%
21 of the analysis sample) and a nursing home (n= 15, 58% of the analysis sample) in Rennes, France,
22 assessing the adequation of introduction of antiepileptics from 2012 to 2021. Our analyzed population,
23 extracted from eHOP Clinical Data Warehouse(2), included 26 residents who were prescribed
24 antiepileptics at least one year after admission to the unit. Their mean age was 89 years old (SD: 3.1)
25 and 77% (n= 20) were women. All of them had multiple comorbidities (median score of Charlson: 7
26 [min: 5; max: 13]). Half were co-prescribed benzodiazepines. Four individuals had been excluded from
27 analysis because no indication was documented in the medical record. The medications mostly
28 prescribed were Pregabalin (n= 10, 38%), Levetiracetam (n= 6, 23%) and Clonazepam (n= 5, 19%) and
29 the most frequent indications were epilepsy or seizures (n= 14, 54%) and neuropathic pain (n= 10,
30 38%). Pregabalin was associated with neuropathic pain in nine prescriptions out of ten. To assess the
31 appropriateness of the prescriptions, we referred to the latest French guidelines on epilepsy updated
32 in 2020(3), to the latest French guidelines on treatment of neuropathic pain edited in 2020(4) and
33 revised in 2021(5), and to the summary of product characteristics of Pregabalin elaborated by the
34 National authority for medication safety and published in 2015(6). We concluded that 58% (n= 15) of
35 all the prescriptions of antiepileptics were appropriate. In the subgroup suffering from epilepsy or
36 seizures, 93% (n= 13) were appropriate. Our findings regarding neuropathic pain are consistent with
37 the study from Candon et al., as the nine prescriptions of Pregabalin were inappropriate. Only one
38 individual suffering from neuropathic pain was treated with Gabapentin, in accordance with the French
39 guidelines. Interestingly, no prescription of Valproic Acid was recorded. Our sample was too small to
40 estimate the evolution from 2012 to 2021 but we observed the yearly prescription of Levetiracetam
41 and Pregabalin in these units and no trend came out.

42 Our findings enhance concerns about misuse of antiepileptics in neuropathic pain, as expressed by
43 Candon et al. and by Carnahan and Saliba in the editorial(7). It seems interesting that these concerns,
44 which are noticed within different healthcare systems, are also true in France as well as in the USA.
45 Older patients may be more seriously affected by the side effects of these treatments that should not
46 be used without a clinical consideration of therapeutic alternatives, including non-pharmacological
47 techniques. By contrast, some of our results were not in accordance with Candon et al. For instance,
48 no disruptive behavior was reported in our sample and they did not explore epilepsy. Antiepileptics
49 are frequently used in geriatrics and their indications are wider than epilepsy. Both studies advocate
50 for monitoring the use of antiepileptics in order to improve our management of these therapeutics.
51 Antiepileptic stewardship, based on the model of antibiotic stewardship(8)(9), could be an interesting
52 option to be assessed in future trials aiming at improving their safety and quality of use.

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58 Fauchon: study design, data compilation, analysis and interpretation, manuscript preparation.

59 Pierre-Jean: data compilation and analysis, manuscript review.

60 Desmarests: data compilation, manuscript review.

61 Hue: data compilation, manuscript review.

62 Somme: study design, data interpretation, manuscript review.

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