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From the authors:

We read with attention the letter by E. Crawford and co-workers and thank them for their interests in our work.

Our retrospective study [1] found that among patients admitted to our intensive care unit (ICU) with pneumococcal community-acquired pneumonia (CAP), we were able to distinguish two distinct populations with respect to exposure to Nonsteroidal anti-inflammatory drugs (NSAIDs). The group of patients who had taken NSAIDs was, surprisingly, much younger (on average 20 years younger) and in a healthier condition than those who had not. Counterintuitively, the much younger and healthier patient group required ICU and organ failure support in a similar manner to those who were sicker and older. We raised the hypothesis that exposure to NSAIDs may have contributed to this situation, possibly by blunting signs and delaying antibiotic prescription. Because our results are in line with other data on the danger of NSAIDs in other infectious settings [2], such as soft tissue infections [3], our conclusion was one of caution regarding the use of NSAID in the context of an infection in progress.

E. Crawford and co-workers argue that our data do not support our conclusion, and that NSAIDs might well have been given because pleural effusion was already present.

They erroneously state that there was no delay in antibiotic prescription. On the contrary, we found that patients exposed to NSAIDs received antibiotics 4.5 days after initial medical consultation, whereas those who did not receive NSAIDs received antibiotics sooner, 2.5 days after initial consultation. Interestingly, time from onset of symptoms to initial consultation was identical in the two groups, suggesting that the degree of severity of symptoms and overall presentation were similar at the start. In an ongoing infectious process, this delay can have serious consequences and may well explain, contrary to E. Crawford and co-workers' hypothesis, the greater pleural involvement in the exposed patients, although we agree our results are not definite proof of NSAIDs' responsibility. We also acknowledge the retrospective nature of our study and its limits.

Nonetheless, NSAIDs are not the innocuous medication E. Crawford and co-workers suggest they are *i.e.* that they can be widely prescribed in the community. Excess deaths associated with NSAIDs exceed sixteen thousand patients a year in the USA [4] and costs associated with side effects from NSAIDs reaches €59 million in the Netherlands annually [5].

We are not "extrapolating data from intensive care populations to guide treatment of all patients in the wider community", since the data we gathered came from the community!

And guiding treatment is precisely a key issue! Surprisingly (or not...), NSAIDs do not appear in the USA [6], European [7] or French [8] guidelines on management of CAP and lower respiratory tract infections. They solely appear in the British Thoracic Society guidelines, and only after paracetamol "for symptomatic treatment of pleuritic chest pain of pneumonia treated in the community" [9]. Importantly, paracetamol is recommended with a weak level of evidence (D) but NSAIDs appear without any evidence whatsoever. In addition, use of NSAIDs do not appear in the BTS guidelines for the management of pleural infection [10]. Hence, there is no data to support the use of NSAIDs as an adjunct therapy for CAP.

Diagnosing CAP in the community is not an easy task, especially in young adults. Our concern is that precisely because they are younger and healthier with fewer comorbidities, they receive fewer (or less promptly) antibiotics. Alleviating pain is a necessary and laudable goal but, to date, no study has demonstrated the superiority of NSAIDs over paracetamol in pneumonia-associated pleuritic chest pain, whereas there is ample evidence demonstrating the detrimental consequence of delaying antibiotherapy.

Caution warrants that general practitioners should avoid NSAIDs in patients with clinical signs suggestive of pneumonia. One should be wary of over interpreting inexistent data.



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Due to the risk of delaying antibiotherapy, NSAID should not be given if an ongoing infection hasn't been ruled out http://ow.ly/LCQMZ



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