

39 The Fever-Pitch Bandwagon

“The fear of fever is deep-seated and is mainly historic, having been passed from one generation to another. Changing that perception will be a mammoth task.”¹

Health Professionals appear to have a love affair with paracetamol. It features not just in their recommendations to have on hand for the bird flu, but paracetamol products appear to be the automatic^{2,3} reflex advice given to parents for fever, illness of any kind, teething, and sometimes, unidentifiable grumpiness.

Why would anyone recommend paracetamol for any influenza, when it is known⁴ to considerably prolong the duration of influenza? An online newspaper⁵ once quoted Dr Karen Plaisance, Associate

- 1 Blumenthal, I. 1998. “What parents think of fever”. *Family Practice*, Vol 15(6): 516. PMID: 10078789.
- 2 Styr, B., and Sugarman, B. 1990. “Antipyresis and fever”. *Arch Intern Med*, August: 150(8): 1589–97. PMID: 2200377.
- 3 Isaacs, S.N. et al. 1990. “Antipyretic Orders in a University hospital”. *The American Journal of Medicine*, January: 88: 31 “Antipyretic orders are routine and correlate more strongly with hospital service than with individual patient characteristics . . . we found antipyretic ordering to be routine, imprecise and rarely noted or commented upon in patients’ progress notes.” PMID: 2294763.
- 4 Plaisance, K.I. 2000. “Effect of antipyretic therapy . . .”. *Pharmacotherapy*, Dec; 20(12): 147–22. PMID: 11130213.
- 5 Burke, A. 2001. “Health Scout” “Take Two aspirin and Prolong the Flu”, Fever-reducers may hinder infection fighting” URL now inactive.

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Professor at the University of Maryland School of Pharmacy and one of the study's authors as saying:

“an elevated temperature may actually help the body fight the infection quicker or better than if you don't have a fever.” . . . ‘Influenza A sufferers who were treated with aspirin or acetaminophen extended their illness from five days to about 8 ½ days.’”

Six years ago Dr Pascale Allotey from Australia spoke out against mothers using paracetamol and other sedative drugs to sedate unruly children.⁶ In the article, one mother said, *“These medications save children's lives because it stops mothers from throwing them against the wall.”*

Quite apart from the lack of parenting skills this attitude exhibits, paracetamol is potentially highly toxic. The only reason no action has been taken on this very contentious issue worldwide (not that most parents would know about it) is to avoid offending the pharmaceutical industry⁷ for whom paracetamol and like products are financially lucrative. We are talking about a drug that every year in the States causes⁸ *“more than 56,000 emergency room visits, 2600 hospitalizations, and an estimated 458 deaths due to acute liver failure”*.

What relevance is this to children? Starship Hospital⁹ used to have a pdf on its website about paracetamol poisoning, which said: *“Paracetamol is the most common single agent involved in poisonous ingestion in young children.”* I wonder why, at the time of writing, the pdf has disappeared.

6 The *Dominion*, Wednesday 29 November, 2000; *New Zealand Herald* 4 December 2000.

7 “FDA fails to reduce accessibility of paracetamol despite 450 deaths a year”. 2002. *British Medical Journal*, [Internet] Available from <<http://bmj.bmjournals.com/cgi/content/full/325/7366/678>> Accessed 18 September, 2005. PMID: 12351357.

8 Lee, W.M. 2004. “Acetaminophen and the U.S. Acute Liver Failure Study group: lowering the risks of hepatic failure”. *Hepatology*, Jul; 40(1): 6–9. PMID: 15239078. “. . . 700 patients with acute liver failure across the United States implicates acetaminophen poisoning in nearly 50% of all acute liver failure in this country. Available in many single or combination products, acetaminophen produces more than 1 billion US dollars in annual sales for Tylenol products alone. It is heavily marketed for its safety compared to nonsteroidal analgesics. By enabling self-diagnosis and treatment of minor aches and pains, its benefits are said by the Food and Drug Administration to outweigh its risks. It still must be asked: Is this amount of injury and death really acceptable for an over-the-counter pain reliever?”

9 <http://www.starship.org.nz/docs/paracetamol.pdf>. Inactive URL The title is there as of December 2005, the pdf is not.

Most parents automatically reach for a paracetamol product whenever their children have a fever, because doctors don't tell them that the medical literature makes it quite clear that painkillers, used to reduce fevers, can make all infections of any kind worse.^{10,11,12,13}

Why do doctors give out painkillers to reduce fevers? Because¹⁴

“physicians often treat fever to alleviate anxiety in patients, their families, or medical personnel, and that such treatment often lacks a compelling medical rationale.”

The World Health Organization states quite clearly that the use of paracetamol for fevers is undesirable:¹⁵

“Fever represents a universal, ancient, and usually

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- 10 Saper, C.B. 1994. “The neurologic basis of fever”. *The New England Journal of Medicine*, June: 30(26): 1880–6. PMID: 7832832.
- 11 Roberts, N.J. 1991. “Impact of temperature elevation on immunologic defenses”. *Reviews of Infectious Diseases*, May–June; 13(3): 462–72. PMID: 1866550. “Overall, it appears that temperature elevation within the physiologic range most effectively enhances the processes involved in initial antigen recognition and support for immunologically specific response to challenge.” Pg 470: “Accumulated direct and indirect evidence suggests an overall beneficial effect of physiologic temperature elevation or fever on host defense mechanisms.” “Paracetamol may prolong infection and reduce the antibody response in mild disease, and increase morbidity and mortality in severe infection . . . there is no evidence that antipyretics prevent febrile convulsions . . . Antipyretics may be harmful. Conclusion: There is little evidence to support the use of paracetamol to treat fever in patients without heart or lung disease, or to prevent febrile convulsions. Indeed paracetamol may decrease the antibody response to infection, and increase morbidity and mortality in severe infection.”
- 12 Shann, F. 1995. “Paracetamol: use in children”. *Aust Prescr* Vol. 18: 233–234. Available from <<http://www.australianprescriber.com/index.php?content=magazines/vol18no2/paracetamol.htm>> “It should be explained to parents that fever is usually a helpful response to infection, and that paracetamol should be used to reduce discomfort, but not to treat fever”.
- 13 Russell, F.M. et al. 2003. “Evidence on the use of paracetamol in febrile children”. *Bull World Health Organ*, 81(5): 367–72. Epub 2003 July 7. PMID: 12856055. “Fever represents a universal, ancient, and usually beneficial response to infection, and its suppression under most circumstances has few, if any, demonstrable benefits. On the other hand, some harmful effects have been shown to occur as a result of suppressing fever: in most individuals, these are slight, but when translated to millions of people, they may result in an increase in morbidity and perhaps the occurrence of occasional mortality. *It is clear, therefore, that widespread use of antipyretics should not be encouraged either in developing countries or in industrial societies.*”
- 14 Styrt, B., and Sugarman, B. 1990. “Antipyresis and Fever”. *Arch Intern Med* August: 150(8): 1589–97. “The decision to administer antipyretics is frequently made *without a documented rationale*. Current understanding of the mechanisms and pathogenesis of fever suggests that the febrile process has a role in host defense and that *routine antipyretic therapy for fever is generally unnecessary and conceivably harmful.*” PMID: 2200377.
- 15 Eichenwald, H. F. 2003. “Fever and antipyresis”. *Bull World Health Organ*, [Internet] December: 81(5): 372–374. PMID: 12856056. Available from <http://www.scielosp.org/scielo.php?script=sci_arttext&pid=S0042-96862003000500012&lng=en&nrm=is-o>. ISSN 0042-9686.

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beneficial response to infection . . . widespread use of antipyretics should not be encouraged either in developing countries or in industrial societies. Unfortunately though, just as fever represents an ancient biological response, an emotional effect is embedded deeply . . . parents have seen that when fever begins to diminish and disappears, the child feels better and recovers from the illness — whatever it was. Thus, the fever has become synonymous with the illness. This flaw in logic has persisted in parents' and physicians' minds, and they are seduced by the thought that if they "make the fever go away, the patient will be well. "No amount of scientific discourse will change this attitude, and antipyresis will continue to be used in children with low-grade fevers, or even no fevers, in the home as well as the hospital."

Perhaps more forceful than the World Health Organization's, is this comment:¹⁶

"Paracetamol may prolong infection and reduce the antibody response in mild disease, and increase morbidity and mortality in severe infection."

I disagree with the WHO.

If parents knew that paracetamol has no benefit in the treatment of fevers, and is a risk factor for the development of asthma,¹⁷ eczema and rhinitis¹⁸ in children, I think they might think long and hard before acting on that oft-heard automatic response "Just use p__l, dear."

16 Shann, F. 1995. "Paracetamol: use in children". *Aust Prescr*, 18: 233–234. [Internet] Available from <<http://www.australianprescriber.com/index.php?content=/magazines/vol18no2/paracetamol.htm>>

17 Beston, A. 2004. "Early paracetamol use linked to asthma: study". *New Zealand Herald* 17 Sept: A3.

18 Cohet, C. et al. 2004. "Infection, medication use, and the prevalence of symptoms of asthma, rhinitis, and eczema in childhood". *Journal of Epidemiology and Community Health*, 58: 852–857. PMID: 15365112.