

# UPFRONT

## THE AUGMENTIN-FREE OFFICE

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### **What is the augmentin-free office?**

A few years ago my clinic colleagues and I got fed up with our students wanting to give every patient amoxicillin clavulanate, available in New Zealand as augmentin; no matter what sort of infection they had, bacterial or viral!

The same thing happened in hospital. Although, according to my hospital teaching colleagues, this has now evolved from amoxicillin clavulanate to using third generation cephalosporins, at great cost and usually no particular advantage.

Amoxicillin clavulanate and third generation cephalosporins are important medications. If they continue to be overused, bacteria will become resistant to them. We want to preserve these antibiotics for occasions they are really needed. In our clinic, we were aware that there is usually a good alternative to amoxicillin clavulanate and came up with the concept of the augmentin-free office.

In our clinic you now 'need' to ask a colleague if it is okay to give a prescription for amoxicillin clavulanate before prescribing it. We even have a former trainee who calls me to get 'permission' to use amoxicillin clavulanate. Clearly our policy is not an absolute prohibition and we are not entirely augmentin-free, but it does control the amount we use.

### **Join the augmentin-free office movement today**

We invite all primary care prescribers to join the movement. You don't have to call me. Preferably find a colleague to act as your 'permitter' and call him or her to check out the need for amoxicillin clavulanate. This is one way to preserve this useful medication for our grandchildren.

### **My history with amoxicillin clavulanate**

This goes back to 1996 when my brother-in-law went to his doctor with a cold and was given amoxicillin clavulanate. Two days later he was no better but had developed diarrhoea. Diarrhoea is one of the common complications of this antibiotic, in that up to 25% of patients will get it. I resolved then to reduce the amount of antibiotics used in New Zealand. Fortunately this seems to be happening. The profession is aware of the growth of resistance to antibiotics and the current overuse.

[www.bpac.org.nz](http://www.bpac.org.nz) keyword: "Augmentin"

## **The antibiotic state of the nation**

This has not been good in the past, but is getting better. In 1996 there were about 1.2 million prescriptions of amoxicillin clavulanate and 0.6 million prescriptions of amoxicillin. Thus between these two medications there were about 1.8 million prescriptions for antibiotics. This seems an extraordinary figure given that there are only 4 million people in the country.

In 2003 this had fallen to about 1.2 million for the two medications combined (0.6 million amoxicillin clavulanate, and 0.6 million amoxicillin). One could only hope it would fall further. However, the Pharmac Annual Report 2005–6 showed that there were 0.74 million prescriptions for amoxicillin clavulanate, and 0.72 for amoxicillin. In that report it was the 4<sup>th</sup> most commonly prescribed medication after paracetamol, simvastatin and omeprazole. This would suggest that there has been a drop in the use of amoxicillin clavulanate and small increase in the use of amoxicillin.

A study conducted in a small New Zealand town found that 42% of the population received an antibiotic in the year 2002.<sup>1</sup> The National Medical Care study (2001) conducted in New Zealand general practice supported these figures. It reported that 53.7% of patients with respiratory infections received an antibiotic.

In 2006, I asked Professor Chris van Weel from the Netherlands what was happening in his country and he said the population antibiotic prescribing rate was about 3%. He thought that even that was too high.

Interestingly the Netherlands has a very low level of bacterial resistance to antibiotics.

**Ad watch is an Australian website that challenges the advertising around amoxicillin clavulanate.**  
<http://snipurl.com/1o3nc>

## **Experience to date with the augmentin-free office**

The augmentin-free office idea is being kept alive by frequent mentioning that this is an augmentin-free office. Being asked if it is appropriate to use amoxicillin clavulanate or asking someone else if it is appropriate, also reinforces the message.

My clinic colleagues feel pleased to be working in an augmentin-free clinic. They feel they are making a contribution to mankind. We have been 'overwhelmed' at the acceptance by parents that antibiotics are no longer routinely given. One patient did get very upset that we were 'augmentin-free.' She clearly had been very medicalised by overuse of augmentin.

When I talk to groups of doctors there are usually a few horrified faces in the audience. This suggests to me they are high users of amoxicillin clavulanate. There is usually someone who gives a challenge, such as the child with impetigo who cannot take oral flucloxacillin. My response is that the augmentin-free office concept is not an absolute and that it is quite reasonable to give amoxicillin clavulanate in such a situation. I do suggest that discussion occurs with parents so that they know that diarrhoea is a potential problem with amoxicillin clavulanate versus difficulty with palatability of oral flucloxacillin.

## **Amoxicillin clavulanate in middle ear infections after amoxicillin has been tried and failed.**

This is a condition where some authorities feel amoxicillin clavulanate has a place. However, I could find no trials of amoxicillin clavulanate versus amoxicillin in patients who had not improved from an initial treatment with amoxicillin. In my own experience I have never seen a case where amoxicillin has not worked i.e. a child is still in pain or febrile after about 4–5 days. Most ears are still red and bulging at that stage, but that is part of the disease.

The evidence suggests that amoxicillin clavulanate is no better than other antibiotics and in some cases inferior. A head-to-head study of amoxicillin and amoxicillin clavulanate found no clinical benefit in terms of otitis media.<sup>6</sup> Another study found no difference, but the elimination of the initially occurring pathogens was equal in the two study groups with the exception of *B. catarrhalis* which was eliminated to a significantly higher extent with amoxicillin clavulanate.<sup>7</sup> Another study found that co-trimoxazole was significantly more effective than amoxicillin clavulanate and had fewer side effects.<sup>8</sup>

A recent meta-analysis of antibiotic versus placebo in acute otitis media reported that antibiotics were most effective in children <2 years with bilateral otitis media (NNT = 4).<sup>9</sup> For unilateral otitis media in this age group, NNT = 20. The measure was improvement in fever and pain at about 3–7 days, so if parents are willing to control the pain and fever with paracetamol and monitor the child for deterioration, very few children should need antibiotics.

**Table 1: Indications for amoxicillin clavulanate use in common conditions**

Condition	Amoxicillin clavulanate indicated	Comment
<b>Acute bronchitis</b>	No, usually no indication for any antibiotics as this is a viral infection	Check the diagnosis: i.e. has the patient got asthma, pneumonia or COPD with an acute exacerbation <sup>2</sup>
<b>Acute cystitis in non-pregnant women</b>	No	Trimethoprim 300 mg daily for 3 days. Norfloxacin or nitrofurantoin are alternatives
<b>Acute cystitis in children</b>	Yes	Alternatives are trimethoprim, cefaclor, nitrofurantoin
<b>Bites and clenched fist injury with no established infection but a high risk of infection</b>	Yes	Penicillin and metronidazole together are an alternative
<b>Community acquired pneumonia</b>	No	Amoxicillin just as good. Systematic review by G Mills et al <sup>3</sup>
<b>Epididymo-orchitis</b>	No	Young men: treat as for urethritis with azithromycin Older men: Ciprofloxacin 500 mg bd for 10 to 14 days
<b>Impetigo</b>	Yes, in children if they will not take oral flucloxacillin and the parents are not too concerned about diarrhoea	Alternatives would be oral cefaclor or oral erythromycin but both of these medications also have adverse effects. Consider offering parents the choice
<b>Middle ear infection</b>	No need for antibiotics initially unless the child is under 6 months or looking very sick	Delayed prescriptions have shown a 75% reduction in antibiotic usage. <sup>4</sup> (see previous page)
<b>Acute sinus pain</b>	No	Antibiotics only indicated in severe cases and then amoxicillin is recommended. A recent trial of amoxicillin clavulanate versus placebo in rhinoscopically diagnosed bacterial sinusitis found no benefit <sup>5</sup>

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