Azithromycin: use it wisely

Growing use of azithromycin in New Zealand means that we are in danger of increasing resistance to macrolide antibiotics, as has been the case in other countries.

In December 2012, PHARMAC widened subsidised access to azithromycin to allow for the treatment of pertussis in children. While this has been beneficial for managing the pertussis epidemic we need to remain cautious with the use of azithromycin to avoid an increase in macrolide resistance in New Zealand, as has been the case overseas.

Azithromycin is an effective antibiotic but its use must be preserved.

Azithromycin has a number of indications, but infectious diseases experts in New Zealand recommend that it is only used in the following situations:

- **First line indications:** pertussis in children, chlamydia, gonorrhoea (for treatment of co-infection with chlamydia),acute non-specific urethritis
- **Second line indications:** pelvic inflammatory disease as an alternative to doxycycline, when chlamydia is present, pertussis in adults when erythromycin is unable to be tolerated

Suboptimal use of antibiotics is the most important cause of the emergence and spread of macrolide-resistant organisms. Prescribing antibiotics when they are not indicated (e.g. for viral infections), prescribing a broad spectrum antibiotic when a narrow spectrum option would be adequate and prescribing antibiotics at an inappropriate dose or length of treatment all result in increased resistance. Azithromycin in particular is more susceptible to the development of resistance because of its long half-life of approximately three days. This results in low (i.e. sub-inhibitory) concentrations of the drug at sites of microorganism carriage for several days, which promotes the selection of resistant strains of bacteria.

The number of azithromycin prescriptions in New Zealand has been increasing since the widening of access in December 2012. Some increase may be expected due to the use of azithromycin for pertussis. However, pertussis rates began to decrease in early 2013, but dispensed azithromycin did not. Rates of chlamydia and gonorrhoea also appear to be stable or decreasing.

Peer group discussion points:

1. What conditions do you usually prescribe azithromycin for?
2. Have you prescribed azithromycin for indications other that the ones recommended in this article? If so, for what reason?
3. Have you prescribed azithromycin more frequently since it became subsidised on the Pharmaceutical Schedule?
4. In previous years we have discussed cautious use of amoxicillin-clavulanate and had an example of an "Augmentin-free practice", where clinicians within the practice set restrictions on when they would use this antibiotic, and had to seek "approval" from a colleague before prescribing it. Would this idea work for azithromycin? Is this something you would consider doing in your practice?
5. Are you aware of the increasing threat of antibiotic resistance in general?
6. If your laboratory provided you with local resistance data, would this change your prescribing practices?
7. Do you feel pressure from patients to prescribe antibiotics, when they perhaps are not required?
8. What could you/your practice do to address the appropriate use of antibiotics?

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